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APPLICANTS: Akira MATSUBARA ,et al.

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TITLE: COMMUNICATION SYSTEM, COMMUNICATION MANAGEMENT SYSTEM AND METHOD

Honorable Commissioner for Patents and Trademarks,
Washington, D. C. 20231

SIR:

CERTIFIED TRANSLATION

I, Yukiko Niwazaki, am an official translator of the Japanese language into the English language and I hereby certify that the attached comprises an accurate translation into English of Japanese application No. 2000-005794, filed on January 6, 2000.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

November 24. 2005
Date

Yukiko Niwazaki

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DEC 16 2005
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[Name of Document] SPECIFICATION

[Title of Invention]

COMMUNICATION SYSTEM, COMMUNICATION MANAGEMENT APPARATUS AND

METHOD

[Scope of Claim for a Patent]

[Claim 1]

A communication system, characterized by comprising:

line connection means for connecting lines between

communication terminals;

communication management means for managing communication

between the communication terminals through said line connection

means;

information supply means for supplying distribution

information to said communication management means;

information distribution means, provided in said

communication management means, for distributing the distribution

information supplied from said information supply means to a

corresponding communication terminal;

privilege assignment means, provided in said communication

management means, for assigning a privilege to a user of the

communication terminal to which the distribution information is

distributed.

[Claim 2]

The communication system according to Claim 1, characterized

in that

said communication terminal is a telephone; and

said information distribution means distributes said distribution information by temporarily suspending the communication during the communication between the telephones.

[Claim 3]

The communication system according to Claim 1, characterized in that

said communication terminal is a telephone; and

said information distribution means distributes the distribution information in parallel with voice information in the communication during the communications between the telephones.

[Claim 4]

The communication system according to Claim 1, wherein

said communication terminal is a telephone, said communication system comprises keyword extraction means, provided on said telephone side and/or said communication management means side, for extracting a predetermined keyword by recognizing voice in a telephone conversation of said user via said telephone; and

said information distribution means selects corresponding distribution information from among plural pieces of said distribution information based on an extraction result by said keyword extraction means, and distributes the distribution information to said communication terminal.

[Claim 5]

The system according to Claim 1, further comprising:

position detection means, provided on said telephone side and/or said communication management means side, for detecting a position of said user; characterized in that

said information distribution means selects corresponding distribution information from among plural pieces of said distribution information based on a detection result by said position detection means, and distributes the distribution information to the communication terminal.

[Claim 6]

A communication management apparatus for managing communication between communication terminals, characterized by comprising:

information distribution means for distributing distribution information to said communication terminals to which communication lines are connected; and

privilege assignment means for assigning a privilege to a user of said communication terminal to which the distribution information is distributed.

[Claim 7]

The communication management apparatus according to Claim 6, characterized in that

said communication terminal is a telephone; and

said information distribution means distributes said distribution information by temporarily suspending the communication during the communication between the telephones.

[Claim 8]

The communication management apparatus according to Claim 6, characterized in that

said communication terminals are telephones; and

said information distribution means distributes the distribution information in parallel with voice information in the communication during the communication between the telephones.

[Claim 9]

The communication management apparatus according to Claim 6, characterized in that

said communication terminal is a telephone, and said communication management apparatus comprises keyword extraction means for extracting a predetermined keyword by recognizing voice in a telephone conversation of said user via said telephone; and

said information distribution means selects corresponding distribution information from among plural pieces of said distribution information based on an extraction result by said keyword extraction means, and distributes the distribution information to said communication terminal.

[Claim 10]

The apparatus according to Claim 6, further comprising position detection means for detecting a position of said user, characterized in that

said information distribution means selects corresponding distribution information from among plural pieces of said distribution information based on a detection result by said

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position detection means, and distributes the distribution information to the communication terminal.

[Claim 11]

A communication management method for managing communication between communication terminals, characterized by comprising:

a first step of distributing distribution information to said communication terminals to which communication lines are connected; and

a second step of assigning a privilege to a user of said communication terminal to which the distribution information is distributed.

[Claim 12]

The communication management method according to Claim 11, characterized in that

said communication terminal is a telephone; and

in said first step, said distribution information is distributed by temporarily suspending the communication during the communication between the telephones.

[Claim 13]

The communication management method according to Claim 11, characterized in that

said communication terminal is a telephone; and

in said first step, said distribution information is distributed in parallel with voice information in the communication during the communication between the telephones.

[Claim 14]

The communication management apparatus according to Claim 11, characterized in that

said communication terminal is a telephone, and

in said first step, after extracting a predetermined keyword by recognizing voice in a telephone conversation of said user via said telephone, corresponding distribution information is selected from among plural pieces of said distribution information based on the extraction result, and the distribution information is distributed to said communication terminal.

[Claim 15]

The communication management apparatus according to Claim 11, characterized in that

in said first step, after detecting a position of said user, corresponding distribution information is selected from among plural pieces of said distribution information based on the detection result, and the distribution information is distributed to said communication terminal.

[Detailed Description of the Invention]

[0001]

[Industrial Field of Utilization]

The present invention relates to a communications system, a communication management apparatus and method, and specifically to a communication system, a communications management apparatus and method for distributing an advertisement during a telephone conversation.

[0002]

[Prior Art]

    Conventionally, for example, a telephone for domestic use, etc. and a portable telephone terminal through a common line is connected to a specific line assigned by a common carrier, and simultaneously assigned a phone number corresponding to the line by a user making a contract for subscription with the common carrier.

[0003]

    Then, the user can receive a call from another subscriber through the common carrier by the phone number specified, or can issue a call to another subscriber through the common carrier by specifying the phone number of the another subscriber.

[0004]

[Problems to be Solved by the Invention]

    The rate for issuing and receiving calls is normally charged to a call issuing user, and the amount set based on the usage (time, day-of-week, telephone conversation time length, the address of a receiver, etc.) of the user is charged to the user.

[0005]

    Therefore, since the telephone rate is charged to the user as the predetermined amount based on the use of the issuing user, the longer the user communicates, the larger amount is charged to the user.

[0006]

The present invention has been developed to solve the above mentioned problems, and aims at providing a communication system, a communication management apparatus and method to significantly improve a user's convenience.

[0007]

[Means for Solving the Problems]

To solve the above mentioned problems, the communication system according to the present invention includes: line connection means for connecting lines between communication terminals; communication management means for managing communication between the communication terminals through the line connection means; information supply means for supplying distribution information to the communication management means; information distribution means, provided in the communication management means, for distributing the distribution information supplied from the information supply means to a corresponding communication terminal; privilege assignment means, provided in the communication management means, for assigning a privilege to a user of the communication terminal to which the distribution information is distributed.

[0008]

As a result, in this communication system, a charge to a user can be reduced, and the distribution information can be effectively distributed to communication terminals of users by the

communication between the communication terminals in return for the distribution of the distribution information to the communication terminals of the users.

[0009]

Additionally, according to the present invention, a communication management apparatus includes: information distribution means for distributing distribution information to communication terminals to which communication lines are connected; and privilege assignment means for assigning a privilege to a user of the communication terminal to which the distribution information is distributed.

[0010]

As a result, in this communication management apparatus, a charge to a user can be reduced, and the distribution information can be effectively distributed to communication terminals of users by the communication between the communication terminals in return for the distribution of the distribution information to the communication terminals of the users.

[0011]

Furthermore, according to the present invention, a communication management method includes: a first step of distributing distribution information to communication terminals to which communication lines are connected; and a second step of assigning a privilege to a user of the communication terminal to which the distribution information is distributed.

[0012]

As a result, in this method, a charge to a user can be reduced, and the distribution information can be effectively distributed to communication terminals of users by the communication between the communication terminals in return for the distribution of the distribution information to the communication terminals of the users.

[0013]

[Embodiments]

An embodiment of the present invention will be described in detail below by referring to the attached drawings.

[0014]

(1) First Embodiment

(1-1) Configuration of Communication System

In Fig. 1, 1 indicates a communication system according to the first embodiment of the present invention. A portable telephone terminal 2 of a user and telephones $1TL_1$ to $1TL_n$, and $2TL_1$ to nTL_n are connected to a common carrier 5 through corresponding portable telephone networks 3 and public telephone networks 4. An advertising agency 6 is connected to the common carrier 5.

[0015]

When a user inputs the phone number of a desired user, the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n issue the phone numbers of the predetermined portable telephone terminal 2 or the telephones 1TL1 to nTLn (transmitting side) and the phone

numbers of the users (receiving side) set by the transmitting user to the common carrier 5 through the corresponding portable telephone network 3 or the public telephone network 4.

[0016]

After the common carrier 5 retrieves a corresponding receiving user according to the calling and receiving phone numbers provided by the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n, it connects the portable telephone terminal 2 of the calling user or the telephones $1TL_1$ to nTL_n with the receiving user's portable telephone terminal (not shown in the attached drawings) or the telephones $1TL_1$ to nTL_n.

[0017]

The portable telephone network 3 comprises: a base station (not shown in the attached drawings) for receiving an electric wave of the portable telephone terminal 2, and transmitting an electric wave from a common carrier to the portable telephone terminal 2; and a portable telephone line (not shown in the attached drawings) for connecting the base station with the common carrier 5.

[0018]

The public telephone network 4 is configured by sequentially and hierarchically interconnecting a first exchange group 1KK comprising exchanges $1KK_1$, $1KK_2$ to $1KK_n$, a second exchange group 2KK comprising exchanges $2KK_1$, $2KK_2$ to $2KK_n$, and a third exchange group 3KK comprising exchanges $3KK_{11}$ to $3KK_{1n}$, $3KK_{21}$ to $3KK_{2n}$, and exchanges $3KK_{n1}$ to $3KK_{nn}$.

[0019]

The third exchange group 3KK is provided in a city, town, or village unit in which a user lives. A second exchange group 2KK is provided in a metropolis or prefecture unit. The first exchange group 1KK is provided in a special service number unit (for example, free communication phone number starting with 0120, an information supply telephone, etc. starting with 0990, etc.).

[0020]

A phone number issued by a user from the portable telephone terminal 2 is transmitted to the common carrier 5 through the portable telephone network 3, and a receiver is retrieved by the common carrier 5 according to the transmitted phone number. If the receiver is the portable telephone terminal 2, the portable telephone terminal 2 on the transmitting side is connected to the portable telephone terminal 2 on the receiving side through the portable telephone network 3. If the receiver is the telephones $1TL_1$ to nTL_n, the portable telephone terminal 2 on the transmitting side is connected to the portable telephone terminal 2 on the receiving side sequentially through the portable telephone network 3, the common carrier 5, and a corresponding exchange $1KK_2$ in the first exchange group 1KK, corresponding exchanges $2KK_1$, $2KK_2$ to $2KK_n$ in the second exchange group 2KK, and the exchanges $3KK_{11}$ to $3KK_{nn}$ corresponding to the telephones $1TL_1$ to nTL_n on the receiving side in the third exchange group 3KK in the public telephone network 4.

[0021]

The phone number issued by a user from the telephones $1TL_1$ to nTL_n is transmitted to the corresponding exchanges $2KK_1$ to $2KK_n$ in the second exchange group $2KK$ through the corresponding exchanges $3KK_{11}$ to $3KK_{nn}$ in the third exchange group $3KK$, transmitted to the exchanges $1KK_1$ to $1KK_n$ corresponding to the special service number in the first exchange group $1KK$, and then transmitted from the exchanges $1KK_1$ to $1KK_n$ of the first exchange group $1KK$ to the common carrier 5 through a so-called intelligent network IN.

[0022]

Thus, the common carrier 5 retrieves a corresponding user according to a received phone number. If it is the portable telephone terminal 2, the portable telephone terminal 2 on the transmitting side is connected to the portable telephone terminal 2 on the receiving side through the portable telephone network 3. If the corresponding user is the telephones $1TL_1$ to nTL_n, the telephones $1TL_1$ to nTL_n on the transmitting side are connected to the telephones $1TL_1$ to nTL_n on the receiving side sequentially through the corresponding exchange $1KK_1$ in the first exchange group $1KK$, the corresponding exchanges $2KK_1$ to $2KK_n$ in the second exchange group $2KK$, the exchanges $3KK_{11}$ to $3KK_{nn}$ corresponding to the telephones $1TL_1$ to $1TL_n$ on the transmitting side, and the exchanges $3KK_{n1}$ to $3KK_{nn}$ corresponding to the telephones $1TL_1$ to $1TL_n$ on the receiving side in the third exchange group $3KK$.

[0023]

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In the information transmission system 1 with the above mentioned configuration, an advertising agency 6 is connected to the common carrier 5, and the advertising agency 6 provides advertisement information for the common carrier 5 in advance, and is charged a distribution rate for the distribution of the advertisement information by the common carrier 5, thereby paying the common carrier 5 the distribution rate for the advertisement information.

[0024]

When the user issues a call to another user using the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n, the common carrier 5 discounts the use rate of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n by the amount set depending on the advertisement information in return for the distribution of the advertisement information to the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user during a telephone conversation through the portable telephone network 3 or the public telephone network 4.

[0025]

For example, when advertisement information is distributed in the telephone conversation in the above mentioned embodiment, the telephone conversation is temporarily suspended, and when the advertisement information is completely distributed, a normal telephone conversation is permitted.

[0026]

Thus, in the information transmission system 1, the common carrier 5 distributes advertisement information to the portable telephone terminal 2 or the telephones $1TL_1$ to $1TL_n$ in telephone conversation, and in return it discounts the rate of use of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n to which the advertisement information is distributed by the amount set depending on the distributed advertisement information.

[0027]

(1-2) Configuration of Common Carrier

Actually, as shown in Fig. 2, the common carrier 5 is configured by interconnecting a CPU (central processing unit) 10 and a server 11, and connecting the CPU 10 to a telephone answering machine server 12 through the server 11.

[0028]

The CPU 10 is connected to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n through the corresponding portable telephone network 3 and the public telephone network 4, and is connected to a plurality of advertisement supply terminals $6A_1$ to $6A_n$ of the advertising agency 6.

[0029]

Then, the CPU 10 manages the telephone of the user through the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n, and accumulates in the server 11 the advertisement information provided from each of the advertisement supply terminals $6A_1$ to $6A_n$ of the advertising agency 6 and the rate table (not shown in the attached drawings) set depending of the advertisement information.

[0030]

When a telephone answering service is set as an optional service for the portable telephone terminal 2, the CPU 10 records the call to the portable telephone terminal 2 for a predetermined time, and accumulates it in the telephone answering machine server 12.

[0031]

When a user provides the CPU 10 with the phone numbers of the transmitting and receiving sides from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n through the corresponding portable telephone network 3 or the public telephone network 4, the CPU 10 retrieves the corresponding user according to the phone number, and then connects the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user with the portable telephone terminal or the telephones $1TL_1$ to nTL_n of the receiving user.

[0032]

When the CPU 10 checks the telephone conversation between the connected users, it reads the advertisement information accumulated in the server 11, and distributes the read information to the corresponding portable telephone terminal 2 or telephones $1TL_1$ to nTL_n in telephone conversation through the corresponding portable telephone network 3 and public telephone network 4.

[0033]

In the distribution of the advertisement information during the telephone conversation, as shown in Fig. 3, for example, an advance announcement that an advertisement is issued in 5 seconds

is made under control of the CPU 10 at a time point t_1 after a predetermined time from the time point t_0 at which telephone conversation starts, and then the advertisement information read by the CPU 10 from the server 11 is distributed under the control of the CPU 10 during a period from a time point t_2 to a time point t_3.

[0034]

Similarly, during the telephone conversation, the advance announcement is issued at each time point t_4 and t_7 under control of the CPU 10, and the advertisement information is distributed at each period from t_5 to t_6 and from t_8 to t_9.

[0035]

Thus, the advertisement information distributed to the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n comprises voice data, image data, text data, etc. For example, when the advertisement information comprises voice data, the telephone conversation of a user is temporarily suspended, and an advertisement is issued based on the voice data to the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user in telephone conversation.

[0036]

When the advertisement information comprises text data, an advertisement CM1 based on the text data is displayed on the display unit MO of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user in telephone conversation as shown in Fig. 4(A). When the advertisement information comprises

text data and image data, an advertisement CM2 based on the text data and the image data is displayed on the display unit MO of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user in telephone conversation as shown in Fig. 4(B).

[0037]

In return for the distribution of the advertisement information to the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user, the CPU 10 discounts the rate of use of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user by the amount set based on the distributed advertisement information. Such accounting information is recorded in the accounting database of the server 11.

[0038]

Thus, when the telephone conversation by a user starts under control of the CPU 10, the common carrier 5 issues an advance announcement at predetermined intervals to the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of the user during telephone conversation, reads advertisement information provided by the advertising agency 6 and accumulated in the server 11, distributes the read information to output the advertisement based on the voice data or display the advertisements CM1 and CM2 based on the text data and/or image data on the display unit MO of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n for a predetermined period, and the user checks the advertisement by viewing or hearing it. Thus, the rate of use of the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n can be

discounted by the amount set depending on the checked advertisement.

[0039]

(1-3) Procedure of Advertisement Distributing Process

Practically, in the communication system 1, the CPU 10 of the common carrier 5 is provided with a advertisement distributing unit (not shown in the attached drawings) and an accounting unit (not shown in the attached drawings). The advertisement distributing unit starts the advertisement distributing procedure RT1 as shown in Fig. 5 in step SP0 when the information transmission system 1 is activated under control of the CPU 10, and distributes advertisement information at predetermined time intervals during the telephone conversation of a user when the user starts communication with another user on the phone.

[0040]

The advertisement distributing unit is one of the application programs in the CPU 10 of the common carrier 5, and the advertisement distributing procedure RT1 described below is practically performed by the CPU 10.

[0041]

That is, the advertisement distributing unit starts the advertisement distributing procedure RT1 in step SP0 when the information transmission system 1 is activated, waits for a call request issued by transmitting the phone numbers of a transmitter and a receiver from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user in step SP1, enters the next step

SP2 when an acknowledgment result can be obtained by issuing a call request through the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n, and obtains the phone numbers of the transmitter and the receiver transmitted at the call request.

[0042]

Then, the advertisement distributing unit connects the telephone of the transmitter to the telephone of the receiver according to the phone numbers of the transmitter and the receiver obtained in step SP2, distributes an advance announcement and advertisement information at predetermined time intervals to the corresponding portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n during the telephone conversation between the users on the phone in step SP3, and enters the next step SP4.

[0043]

In step SP4, the advertisement distributing unit determines whether or not the telephone conversation terminates. When the advertisement distributing unit obtains a negative result indicating that the telephone conversation continues, it returns to step SP3, distributes again the advance announcement and the advertisement information to the corresponding portable telephone terminal 2 and telephones $1TL_1$ to nTL_n at predetermined time intervals, and sequentially repeats the loop of step SP3 to SP4 until the telephone conversation terminates.

[0044]

When a negative result is obtained in step SP4 by the termination of the telephone conversation, control is passed to

the next step SP5, the advertisement distributing unit notifies the accounting unit of the distribution data based on the distribution situation of the advertisement information during the telephone conversation and the accounting data containing the phone number of the transmitter of the telephone conversation, etc., and control is returned to step SP1.

[0045]

When the advertisement distributing unit receives a call request from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user, it sequentially repeats the loop of step SP1 - SP2 - SP3 - SP4 - SP5, and distributes advertisement information at predetermined time intervals to the corresponding portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n in telephone conversation.

[0046]

(1-4) Accounting Procedure

In the communication system 1, the accounting unit of the CPU 10 of the common carrier 5 starts the accounting procedure RT2 shown in Fig. 6 from step SP10 when the information transmission system 1 is activated under control of the CPU 10, and computes the rate charged for the terminated telephone conversation based on the accounting data notified by the advertisement distributing unit.

[0047]

The accounting unit is included in the application program performed by the CPU 10 of the common carrier 5, and the

accounting procedure RT2 described below is actually performed by the CPU 10.

[0048]

That is, the accounting unit starts the accounting procedure RT2 from step SP10 when the information transmission system 1 is activated, control is passed to the next step SP11, and the accounting unit waits for the notification of the accounting data from the advertisement distributing unit.

[0049]

When the accounting unit obtains an acknowledgment result in step SP11 by being notified of the accounting data by the advertisement distributing unit, it enters step SP12, and obtains the phone number to be charged to based on the notified accounting data.

[0050]

Then, the accounting unit enters the next step SP13, subtract, based on the accounting data the discount amount set based on the advertisement information distributed during the telephone conversation from the telephone conversation rate for the telephone conversation, associates the obtained telephone conversation rate with the phone number to be charged to, records them in the accounting database of the server 11, and updates the accounting database.

[0051]

Back in step SP11, the accounting unit waits for the notification of the new accounting data from the advertisement

distributing unit, and sequentially repeats the loop of step SP11 - SP12 - SP13 each time the accounting data is received from the advertisement distributing unit.

[0052]

(1-5) Operation and Effect of First Embodiment

With the above mentioned configuration, the common carrier 5 manages the telephone conversation of a user in the communication system 1 as shown in Fig. 7. When it confirms that the first telephone conversation T1 is started, it starts the advertisement distributing process CH1 for the first telephone conversation T1. When the common carrier 5 confirms that the second telephone conversation T2 is started during the advertisement distributing process CH1, it starts the advertisement distributing process CH2 for the second telephone conversation T2.

[0053]

When the common carrier 5 confirms the start of the third telephone conversation T3 during the advertisement distributing processes CH1 and CH2, it starts the advertisement distributing process CH3 for the third telephone conversation T3.

[0054]

When the advertisement distributing process CH2 terminates during the advertisement distributing processes CH1 and CH3 by the termination of the second telephone conversation T2, the common carrier 5 performs the accounting process corresponding to the second telephone conversation T2 and the advertisement distributing process CH2.

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[0055]

When the common carrier 5 confirms the start of the fourth telephone conversation T4 during the advertisement distributing processes CH1 and CH3, it starts the advertisement distributing process CH2 for the fourth telephone conversation T4, and performs the accounting process corresponding the first telephone conversation T1 and the advertisement distributing process CH1 when the advertisement distributing process CH1 terminates by the termination of the first telephone conversation T1 during the advertisement distributing processes CH2 and CH3.

[0056]

When the common carrier 5 confirms the start of the fifth telephone conversation T5 during the advertisement distributing processes CH2 and CH3, it starts the advertisement distributing process CH1 for the fifth telephone conversation T5. Afterwards, each time a telephone conversation is started, the common carrier 5 starts an advertisement distributing process, and performs a corresponding accounting process when the advertisement distributing process terminates by the termination of the telephone conversation.

[0057]

As a result, in the communication system 1, in return for the distribution of advertisement information to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n during the telephone conversation of a user, the common carrier 5 discounts the rate of use of the portable telephone terminal 2 and the

telephones $1TL_1$ to nTL_n of the user by the amount set depending on the distributed advertisement information, thereby reducing the charge to the user, and effectively distributing advertisement information to users.

[0058]

With the above mentioned configuration, when a call is issued from the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n, it is transmitted through a predetermined transmission line and the common carrier 5. As a result, in return for the distribution of advertisement information to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n during the telephone conversation, the common carrier 5 discounts the rate of use of the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n by the amount set depending on the distributed advertisement information, thereby reducing the charge for use of the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n, and effectively distributing advertisement information to users. Thus, the communication system 1 can be realized with its convenience greatly improved.

[0059]

(2) Second Embodiment

(2-1) Configuration of Communication System

In Fig. 8 showing the same reference numeral assigned to a unit corresponding to the unit shown in Fig. 1, reference numeral 20 generally denotes a communication system according to the second embodiment of the present invention. The communication

system 20 has the same configuration as the communication system 1 according to the first embodiment of the present invention except that the configuration of a common carrier 21 is different from the configuration of the common carrier 5 (Fig. 1).

[0060]

(2-2) Configuration of Common Carrier

Practically, the common carrier 21 is the same in configuration as the common carrier 5 according to the first embodiment as shown in Fig. 9 in which the same reference numeral is assigned to a unit corresponding to the unit shown in Fig. 2 except that a voice recognition unit 22 is added to the configuration of the common carrier 5 (shown in Fig. 2), and the voice recognition unit 22 is interconnected with the CPU 10.

[0061]

When a user starts telephone conversation with another user, the voice recognition unit 22 sequentially recognizes words in the telephone conversation under control of the CPU 10, picks up the recognized words as keywords, and generates keyword tables of the user and/or the other user (not shown in the attached drawings) corresponding to the keywords and the frequency of the keywords (that is, as keyword tables of the telephone conversation) separately or collectively based on the phone numbers of the transmitting side and the receiving side.

[0062]

On the other hand, the server 11 stores in advance a keyword-category table TA1 and an advertisement-category table TA2 as

shown in Figs. 10 and 11, and the CPU 10 compares the keyword-category table TA1 with the keyword table generated by the voice recognition unit 22, and extracts an intermediate category and a large category.

[0063]

Then, the CPU 10 specifies a predetermined number of intermediate and large categories in order from the highest frequency from among the extracted intermediate and large categories, selects advertisement information corresponding to the specified intermediate and large categories based on the advertisement-category table TA2 of the server 11, and distributes the selected information to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n of the user in telephone conversation through the corresponding portable telephone network 3 and public telephone network 4.

[0064]

Thus, the communication system 20 can distribute the advertisement information based on the liking of a user by priority by the CPU 10 of the common carrier 21 selecting and distributing the advertisement information corresponding the intermediate and large categories specified based on the keyword picked up by the voice recognition unit 22.

[0065]

(2-3) Voice Recognition Activating Procedure

Practically, in the communication system 20, the CPU 10 of the common carrier 21 is provided with a communication management

unit (not shown in the attached drawings) in addition to the advertisement distributing unit (not shown in the attached drawings) and the accounting unit (not shown in the attached drawings), and the communication management unit starts a voice recognition activating procedure RT3 in step SP20 as shown in Fig. 12 when the communication system 20 is activated under control of the CPU 10, and activates the voice recognition unit 22 when a user calls up another user and starts telephone conversation between them.

[0066]

The communication management unit is included in the application programs performed by the CPU 10 of the communication system 20. The voice recognition activating procedure RT3 described below is actually performed by the CPU 10.

[0067]

That is, the communication management unit starts the voice recognition activating procedure RT3 in step SP20 when the communication system 20 is activated, enters a wait state until a call request is issued by transmitting the phone numbers of a transmitter and a receiver from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user in step SP 21, enters the next step SP 22 when an acknowledgment result is obtained by receiving the call request from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n, and obtains the phone numbers of the transmitter and the receiver transmitted by the call request.

[0068]

Then, the communication management unit activates the voice recognition unit 22 by transmitting an activate instruction to the voice recognition unit 22 in the next step SP23, notifying in step SP 24 the voice recognition unit 22 of the phone number of the transmitter and the receiver obtained in step SP 22, and returns to step SP21.

[0069]

Thus, the communication management unit sequentially repeats the loop in steps SP21 - SP22 - SP23 - SP24 when a call request is issued from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user, and activates the voice recognition unit 22 so that the telephone conversation can be voice-recognized.

[0070]

(2-4) Voice Recognizing Procedure

The voice recognition unit 22 of the communication system 20 starts the voice recognizing procedure RT4 as shown in Fig. 13 in step SP30 when it receives an activate instruction from the CPU 10, sequentially recognizes the words in the telephone conversation, and generates a keyword table by picking up the recognized words as keywords.

[0071]

That is, the voice recognition unit 22 starts the voice recognizing procedure RT4 in step SP 30 when it receives an activate instruction from the CPU 10, obtains phone numbers notified by the CPU 10 in step SP 31, and passes to the next step SP 32.

[0072]

In step SP 32, the voice recognition unit 22 sequentially recognizes the words in the telephone conversation of the users corresponding to the notified phone numbers, picks them up as keywords; passes to the next step SP33, and generates keyword tables depending on the keywords and their frequencies based on the notified phone numbers either separately for each user or collectively (that is, as the keyword tables of the telephone conversation).

[0073]

Then, the voice recognition unit 22 passes to the next step SP34, determines whether or not the telephone conversation has terminated, returns to step SP32 when a negative result indicating that the telephone conversation has not terminated is obtained, sequentially repeats the loop in step SP32 - SP33 - SP34 until the acknowledgment result indicating that the telephone conversation has terminated is obtained in step SP 34, and terminates the voice recognizing procedure RT4 in step SP 35 when the acknowledgment result indicating that the telephone conversation has terminated is obtained in step SP34.

[0074]

(2-5) Advertisement Distributing Procedure

On the other hand, as with the above mentioned communication management unit, the advertisement distributing unit of the CPU 10 of the common carrier 21 starts the advertisement distributing procedure RT5 as shown in Fig. 14 in step SP40 when the

information transmission system 20 is activated under control of the CPU 10, and distributes advertisement information based on telephone conversation of users at predetermined time intervals during the telephone conversation when the user starts the telephone conversation with another user on the phone.

[0075]

The advertisement distributing unit is one of the application programs in the CPU 10 of the common carrier 21, and the advertisement distributing procedure RT5 described below is practically performed by the CPU 10.

[0076]

That is, the advertisement distributing unit starts the advertisement distributing procedure RT5 in step SP40 when the information transmission system 20 is activated, waits for a call request issued by transmitting the phone numbers of a transmitter and a receiver from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user in step SP41, enters the next step SP42 when an acknowledgment result can be obtained by issuing a call request through the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n, and obtains the phone numbers of the transmitter and the receiver transmitted at the call request.

[0077]

Then, the advertisement distributing unit connects the telephone of the transmitter to the telephone of the receiver according to the phone numbers of the transmitter and the receiver obtained in step SP42, compares the keyword-category table TA1

stored in the server 11 with the keyword table generated by the
voice recognition unit 22 according to the phone numbers of the
transmitter and the receiver, and extracts the intermediate and
large categories in step SP43.

[0078]

Then, the advertisement distributing unit specifies a
predetermined number of intermediate and large categories in order
from the highest frequency from among the extracted intermediate
and large categories, selects advertisement information
corresponding to the specified intermediate and large categories
based on the advertisement-category table TA2 of the server 11,
distributes an advance announcement and the selected advertisement
information at predetermined time intervals to the corresponding
portable telephone terminal 2 and telephones $1TL_1$ to nTL_n during
the telephone conversation between the users in step SP44, and
passes to the next step SP45.

[0079]

The advertisement distributing unit determines in step SP45
whether or not the telephone conversation has terminated, returns
to step SP43 when a negative result indicating that the telephone
conversation has not terminated is received, and sequentially
repeats the loop in step SP43 - SP44 - SP45 until an
acknowledgment result indicating that the telephone conversation
has terminated is obtained in step SP45.

[0080]

When the acknowledgment result indicating that the telephone conversation has terminated is obtained in step SP45, the advertisement distributing unit notifies the accounting unit of the accounting data containing the distribution data based on the distribution state of the advertisement information during the telephone conversation, the phone numbers of the transmitter of the call, etc. in step SP46, and then returns to step SP41.

[0081]

When the advertisement distributing unit receives a call request from the portable telephone terminal 2 or the telephones $1TL_1$ to nTL_n of a user, it sequentially repeats the loop of step SP41 – SP42 – SP43 – SP44 – SP45 – SP46, and distributes advertisement information based on the telephone conversation at predetermined time intervals to the corresponding portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n in telephone conversation.

[0082]

(2-6) Operation and Effect of the Second Embodiment

With the above mentioned configuration, in the communication system 20, the common carrier 21 manages the telephone conversation of users as shown in Fig. 15, issues an activate instruction to the voice recognition unit 22 when the start of the first telephone TE1 is confirmed, and starts the voice recognizing process of the resource L1 in the corresponding resources L1 to L3 when the voice recognizing process has, for example, three resources L1 to L3.

[0083]

When the common carrier 21 confirms the start of the second telephone TE2 during the voice recognizing process of the resource L1, it issues an activate instruction to the voice recognition unit 22 corresponding to the second telephone TE2, and starts the voice recognizing process of the resource L2.

[0084]

When the common carrier 21 confirms the start of the third telephone TE3 during the voice recognizing process of the resources L1 and L2, it issues an activate instruction to the voice recognition unit 22 corresponding to the third telephone TE3, and starts the voice recognizing process of the resource L3.

[0085]

When the common carrier 21 confirms the termination of the second telephone TE2 during the voice recognizing process of the resources L1 and L3, it allows the voice recognition unit 22 to terminate the voice recognizing process of the resource L2 corresponding to the second telephone TE2. Thus, the resource L2 enters a free state.

[0086]

When the common carrier 21 confirms the start of the fourth telephone TE4 in this state, it issues an activate instruction to the voice recognition unit 22 corresponding to the fourth telephone TE4, and starts the voice recognizing process of the resource L2.

[0087]

When the common carrier 21 confirms the termination of the first telephone TE1 during the voice recognizing process of the resources L2 and L3, it allows the voice recognition unit 22 to terminate the voice recognizing process of the resource L1 corresponding to the first telephone TE1. Thus, the resource L1 enters a free state.

[0088]

When the common carrier 21 confirms the start of the fifth telephone TE5 in this state, it issues an activate instruction to the voice recognition unit 22 corresponding to the fifth telephone TE5, and starts the voice recognizing process of the resource L1.

[0089]

If the sixth telephone TE6 is started when these resources L1 to L3 are being used, and the common carrier 21 issues an activate instruction corresponding to the sixth telephone TE6, then the voice recognition unit 22 waits until any of the resources L1 to L3 becomes free without performing the voice recognizing process corresponding to the sixth telephone TE6 because all resources L1 to L3 are being used.

[0090]

As a result, in the communication system 20, the common carrier 21 voice-recognizes the telephone conversation of users, sequentially picks up keywords, and extracts categories depending on the keywords, thereby selecting advertisement information corresponding to the categories. Thus the communication system 20

can distribute to the user the advertisement information suitable for the preference of the user.

[0091]

With the configuration, the voice recognition unit 22 is provided for the common carrier 21, a keyword is extracted by sequentially voice-recognizing the words in the telephone conversation of users, and advertisement information is selected based on the categories corresponding to the keywords, thereby distributing the advertisement information corresponding to the liking of a user to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n of the user, and more effectively distributing the advertisement information to the user.

[0092]

(3)　Third Embodiment

(3-1)　Configuration of Communication System

In Fig. 16 in which part corresponding to those in Fig. 1 are assigned the same reference numerals as in Fig. 1, reference numeral 30 denotes a communication system according to the third embodiment, and the system has the same configuration as the communication system 1 according to the first embodiment except that the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ are respectively different from the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n (shown in Fig. 1).

[0093]

Actually, the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ are provided with a confirm command (not

shown) notifying as confirmation data that the advertisement information distributed by the common carrier 5 has been completely viewed and/or heard.

[0094]

When the common carrier 5 distributes an advertisement CM3 according to the advertisement information containing text data at the end of which a view confirmation quiz, etc. as shown in Fig. 17(A) is added to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, the corresponding advertisement CM3 is displayed on the display unit MO, and is sequentially viewed by a user in the order of Fig. 17(B) and (C).

[0095]

When a user answers the quiz corresponding to the contents of the advertisement added at the end of the advertisement CM3 displayed on the display unit MO as shown in Fig. 17(D), the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ transmit the confirmation data to the common carrier 5 based on a predetermined confirm command, thereby notifying that the user has completely viewed the advertisement information.

[0096]

Thus, the CPU 10 of the common carrier 5 can confirm the user has completely viewed the distributed advertisement information by receiving the confirmation data transmitted from the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, counts the number of pieces of distributed advertisement information for the

received conformation data, and updates the distribution record stored in the server 11.

[0097]

Then, the CPU 10 reads from the server 11 a command to delete the advertisement information distributed to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ from the display unit MO of the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, and transmits it to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$.

[0098]

Then, the CPU 10 compares the number of pieces of distributed advertisement information based on the distribution record of the advertisement information stored in the server 11 with the number of pieces of distributed advertisement information set in the contract between the common carrier 5 and the advertising agency 6 (hereinafter referred to as the number of pieces under contract), terminates the distribution of the advertisement information and starts the distribution of new advertisement information to specified or all users if the number of pieces of distributed advertisement information has reached the number of pieces under contract, and continues distributing the advertisement information to specified or all users until the number of pieces of distributed advertisement information reaches the number of pieces under contract if the number of pieces of distributed advertisement information has not reached the number of pieces under contract.

[0099]

Thus, in a communication system 30, the common carrier 5 can set the discount condition for a corresponding user depending on the confirmation situation of the advertisement information of the user, and can also set a discount amount depending on the number of pieces of distributed advertisement information.

[0100]

(3-2) Advertisement Distribution Managing Procedure

Actually, in the communication system 30, the CPU 10 of the common carrier 5 is provided with an advertisement distribution managing unit (not shown in the attached drawings). The advertisement distribution managing unit starts the advertisement distribution managing procedure RT6 as shown in Fig. 18 in step SP50 when the advertisement information is distributed by the advertisement distributing unit to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ of the user under control of the CPU 10, and manages the process of distributing the advertisement information until the number of pieces of distributed advertisement information reaches the number of pieces under contract.

[0101]

The advertisement distribution managing unit is included in the application programs performed by the CPU 10 of the common carrier 5, and the advertisement distribution managing procedure RT6 described below is actually performed by the CPU 10.

[0102]

That is, the advertisement distribution managing unit starts the advertisement distribution managing procedure RT6 as shown in Fig. 18 in step SP50 when advertisement information is distributed by the advertisement distributing unit to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ of the user, and waits for a confirmation notification indicating that the advertisement information distributed to the portable telephone terminal 2A and/or the telephones $1ATL_1$ to $nATL_n$ has been viewed or heard by the user by transmitting the confirmation data from the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ in step SP51.

[0103]

When an acknowledgment result is obtained in step SP51 by receiving a confirmation notification from the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, the advertisement distribution managing unit counts the number of pieces of distributed advertisement information stored in the server 11 by the number of confirmation notifications and updates the distribution record stored in the server 11 in step SP52, and passes to the next step SP53.

[0104]

In step SP53, the advertisement distribution managing unit reads from the server 11 a command to delete the advertisement information distributed to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$ of the user from the display unit MO of the portable telephone terminal 2A and the telephones $1ATL_1$ to

nATL$_n$, and transmits it to the portable telephone terminal 2A and the telephones 1ATL$_1$ to nATL$_n$.

[0105]

Then, the advertisement distribution managing unit determines in step SP54 whether of not the number of pieces of distributed advertisement information according to the distribution record has reached the number of pieces of the advertisement information under contract, returns to step SP52 when a negative result is obtained that the number of pieces of distributed advertisement information has not reached the number of pieces under contract, and waits for a confirmation notification from the portable telephone terminal 2A and the telephones 1ATL$_1$ to nATL$_n$.

[0106]

Then, the advertisement distribution managing unit sequentially repeats the loop of steps SP51 – SP52 – SP53 – SP54 until an acknowledgment result is obtained by the number of pieces of distributed advertisement information reaching the number of pieces under contract in step SP54. When an acknowledgment result is obtained in step SP54, control is passed to step SP55, and the advertisement distribution managing procedure RT6 terminates.

[0107]

(3-3) Operation and Effect of the Third Embodiment

With the above mentioned configuration in the communication system 30, after the user has completely viewed and/or heard the advertisement information distributed to the portable telephone terminal 2A and telephones 1ATL$_1$ to nATL$_n$, a confirmation

notification of the advertisement information is issued to the common carrier 5 based on the conformation command set in advance in the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$.

[0108]

Then, the common carrier 5 updates the distribution record of the advertisement information, distributes a command to delete the advertisement information to the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, and distributes the advertisement information to specified users or all users until the number of pieces under contract is reached according to the distribution record of the advertisement information.

[0109]

As a result, in the communication system 30, the common carrier 5 can set the discount condition for the user depending on the confirmation situation of the advertisement information of the user, and can also set the discount amount corresponding to the number of pieces of distributed advertisement information.

[0110]

With the above mentioned configuration, in the communication system 30, if a user notifies the common carrier 5 of the confirmation of the advertisement information after viewing and/or hearing the distributed advertisement information based on a confirm command predetermined in the portable telephone terminal 2A and the telephones $1ATL_1$ to $nATL_n$, then the common carrier 5 updates the distribution record of the advertisement information,

distributes a command to delete the advertisement information to the portable telephone terminal 2 and the telephones 1ATL$_1$ to nATL$_n$ of the user, and distributes the advertisement information to specific or all users until the number of pieces of the advertisement information under contract is reached based on the distribution record of the advertisement information, thereby allowing the common carrier 5 to set the discount condition for the user corresponding to the confirmation situation of the advertisement information of the user, and realizing the communication system 30 capable of furthermore improving the convenience.

[0111]

(4) Fourth Embodiment

(4-1) Configuration of Communication System

In Fig. 19 in which parts corresponding to those in Fig. 1 are assigned the same reference numerals as in Fig. 1, reference numeral 40 denotes the communication system according to the fourth embodiment, and is the same in configuration as the communication system 1 according to the first embodiment except that the configuration of a common carrier 41 is different from that of the common carrier 5 (Fig. 1).

[0112]

(4-2) Configuration of Common Carrier

As shown in Fig. 20 in which parts corresponding to those in Fig. 2 are assigned the same reference numerals as in Fig. 2, the common carrier 41 is actually the same as the common carrier 5

according to the first embodiment except that an accounting unit 42 is provided in addition to the configuration of the common carrier 5 (shown in Fig. 2) for interconnection with the CPU 10, a predetermined point (hereinafter referred to as an advertisement point) arbitrarily set for the advertisement information to be distributed to the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n of the user is added, and a discount rate table DT containing fees set corresponding to the advertisement points such as a contract amount fee, a basic fee, a telephone conversation fee, etc. as shown in Fig. 21, and an advertisement point table (not shown in the attached drawings) containing obtained points for each user corresponding to the distribution history of advertisement information are stored in advance in the server 11.

[0113]

The accounting unit 42 reads the discount rate table DT and the advertisement point table stored in advance in the server 11, computes the discount rate for each user based on the discount rate table and the advertisement point table, and charges the rate to each user based on the computation result.

[0114]

At this time, a point of any value is set for each piece of advertisement information depending on the distribution situation and the contents. For example, the point of the advertisement information considered to have the contents significant for the user (matching the liking of the user) is assigned a low point

while the opposite advertisement information is assigned a high point. Simultaneously, the discount amount for the user corresponding to the advertisement point is set to increase with an increasing advertisement point proportional to an advertisement point.

[0115]

Thus, in the information communication system 40, if the common carrier 41 is notified under control of the CPU 10 that a user has completely confirmed the distributed advertisement information, then it updates the advertisement point table for the user stored in the server 11, and the discount rate computed by the accounting unit 42 based on the advertisement point table and the discount rate table DT corresponding to the point value of the distributed advertisement information is reduced from the total rate charged to the user.

[0116]

(4-3) Operation and Effect according to the Fourth Embodiment

With the above mentioned configuration, in the communication system 40, the common carrier 41 assigns in advance any advertisement point to advertisement information to be distributed, the accounting unit 42 computes the discount amount for each user based on the discount rate table DT and the advertisement point table of each user stored in advance in the server 11 under control of the CPU 10, and charges the rate to each user based on the computation result.

[0117]

As a result, in the communication system 40, the charge to each user can be reduced by the discount amount corresponding to the point value of the advertisement information distributed by the common carrier 41.

[0118]

With the above mentioned configuration, the accounting unit 42 is provided for the common carrier 41, an optional advertisement point is added to advertisement information to be distributed in advance, the server 11 stores the discount rate table DT and the advertisement point table of each user, the discount amount is computed for each user based on the discount rate table DT and the advertisement point table for each user under control of the CPU 10, and each user is charged based on the computation result, thereby reducing the rate for each user by the discount amount corresponding the point value of the advertisement information distributed by the common carrier 41, and realizing the communication system 40 capable of furthermore improving its convenience.

[0119]

(5)　Other Embodiments

According to the above mentioned embodiments, advertisement information is distributed to the portable telephone terminal 2, the portable telephone terminal 2A, and the telephones $1TL_1$ to nTL_n and $1ATL_1$ to $nATL_n$ by temporarily suspending the telephone conversation. However, the present invention is not limited to this application, but the advertisement information can also be

distributed to the portable telephone terminal 2, the portable telephone terminal 2A, and the telephones $1TL_1$ to nTL_n and $1ATL_1$ to $nATL_n$ in the state other than in telephone conversation such as in, for example, a call wait state, etc. Furthermore, for example, a musical advertisement can be distributed as a BGM (background music) during telephone conversation of users without suspending the telephone conversation, and advertisement information can be distributed to a telephone answering machine if a user subscribes to a telephone answering service.

[0120]

In this case, the service can be provided free of charge in return for the distribution of advertisement information to the telephone answering machine, and the advertisement information as the BGM can be distributed in a package PK1 for repeating an advertisement CM1A according to the advertisement information having the same contents, a package PK2 obtained by combining the advertisements CM1B and CM1C according to the advertisement information having different contents and the same lengths, a package PK3 obtained by combining the advertisements CM1A CM1D, and CM1C according to the advertisement information having different contents and lengths, a package PK4 providing a portion of only normal conversation for a predetermined time between the advertisements CM1As (in the period from time point T1 to time point T3) as shown in Fig. 22.

[0121]

In addition, for example, when a user has a personal computer 50 as shown in Fig. 23, the personal computer 50 is interconnected with the CPU 10 of the common carrier 5 through Internet 51 so that the common carrier 5 can distribute advertisement information to the personal computer 50. The method of distributing the advertisement information can be any of the various other distributing methods. In this example, the common carrier 5 can be the common carriers 21 and 41.

[0122]

According to the above mentioned second embodiment, the common carrier 21 uses the voice recognition unit 22 to select the advertisement information according to the category corresponding to the keyword extracted from the telephone conversation between users as a method of selecting distributed advertisement information. However, the present invention is not limited to this application. For example, the portable telephone terminal 2 and the telephones $1TL_1$ to nTL_n contain voice recognition means to extract a category and notify the common carrier 5 of the result, thereby securing the privacy of the users in the telephone conversation.

[0123]

In addition, the a phone number-category table TA3 as shown in Fig. 24 can be stored in advance in the server 11 to select advertisement information according to a category extracted based on the phone number-category table TA3 and the call history of a

user, and select advertisement information corresponding to action patterns of a user as shown in Fig. 25.

In this case, a GPS (global positioning system) can be built in or provided for the portable telephone terminal 2 of a user as a position detection means to detect the position of the user, select advertisement information corresponding the position of the user, and distribute the information, thereby allowing the user to obtain the advertisement information in real time corresponding to the position of the user.

[0125]

It is also possible that a user selects advertisement information at the time of subscription, selects advertisement information using a personal computer through Internet, and for example, as shown in Fig. 26, selects advertisement information on the monitor MO of the portable telephone terminal 2 and the telephones $1TL_1$ to $1TL_n$. Many other methods can also be applied as a method of selecting advertisement information to be distributed.

[0126]

Furthermore, according to the third embodiment, as a method of issuing an acknowledgment by a user of distributed advertisement information, a quiz is added at the end of advertisement information, and a user answers the quiz as an acknowledgment. However, the present invention is not limited to this application. For example, a user can return a keyword, a predetermined ID (identification information) incorporated into advertisement information, etc. as an acknowledgment. That is,

other methods can be used only if they can inform that the user has completely viewed or heard the distributed advertisement information.

[0127]

According to the above mentioned fourth embodiment, a point is arbitrarily set for advertisement information to be distributed as a discount method, and the accounting unit 42 charges a rate to a user based on a discount rate set corresponding to the advertisement point. However, the present invention is not limited to this application. For example, when a rate exceeds the telephone conversation rate for a month as set at the time of subscription of the user, the distribution of the advertisement information corresponding to the amount can be requested to discount the amount from the rate for the month, and to discount the amount from the rate for the next month. Furthermore, a user can request the distribution of the advertisement information corresponding to the amount to be discounted. That is, other discounting methods can be used only if the rate can be reduced for the user.

[0128]

Furthermore, although in the above mentioned embodiments, the portable telephone network 3 and the public telephone network 4 are applied as line connection means, the present invention is not limited to this application. It is essential only that the lines between the communications terminals be connected, and as the line connection means, for example like a communication system 60 shown

in Fig. 27, Intranet, Internet or the like can be widely applied, which is connected using a line other than the public telephone network 4 by a so-called dry copper system branching the telephone nTL_n and the exchange $3KK_{nn}$ through an asymmetric digital subscriber line (ADSL).

[0129]

In addition, according to the above mentioned embodiment, the common carriers 5, 21, and 41 are applied as communication management means. However, the present invention is not limited to this application. That is, various other communication management means can be widely applied only if they can manage the communication among communication terminals through line connection means.

[0130]

Furthermore, in the above mentioned embodiments, the advertising agency 6 is adopted as information supply means. However, the present invention is not limited to this application. That is, various other information supply means can be widely adopted only if they can distribute distribution information to communication management means.

[0131]

In the above mentioned embodiments, the common carrier 5 is adopted as information distribution means. However, the present invention is not limited to this application. That is, various other information distribution means can be used only if they can

distribute distribution information from information supply means to communication terminals.

[0132]

Furthermore, according to the above mentioned embodiments, the common carriers 5, 21, and 41 are adopted as privilege assignment means. However, the present invention is not limited to this application. That is, various other privilege assignment means can be used only if they can assign a privilege to a user of a communication terminal to which distribution information is distributed.

[0133]

In addition, according to the above mentioned embodiments, the portable telephone terminals 2 and 2A, and the telephones $1TL_1$ to nTL_n and $1ATL_1$ to $nATL_n$ are used as communication terminals. However, the present invention is not limited to this application. For example, a personal handy phone system (PHS), a personal computer, etc. can be used, and various other communication terminals can be widely used.

[0134]

In addition, according to the above mentioned embodiment, the common carriers 5, 21, and 41 use the advertisement information provided by the advertising agency 6 as distribution information. However, the present invention is not limited to this application. That is, various other information can be widely used only if it can be distributed to the portable telephone terminals 2 and 2A, the telephones $1TL_1$ to nTL_n and $1ATL_1$ to $nATL_n$, etc. of users.

[0135]

Furthermore, according to the above mentioned embodiment, the voice recognition unit 22 of the common carrier 21 is adopted as keyword extraction means. However, the present invention is not limited to this application. That is, various other keyword extraction means can be widely used only if they can extract a predetermined keyword by voice-recognizing the telephone conversation between users through communication terminals.

[0136]

[Effect of the Invention]

As described above, according to the present invention, the communication system includes: line connection means for connecting lines between communication terminals; communication management means for managing communication between the communication terminals through the line connection means; information supply means for supplying distribution information to the communication management means; information distribution means, provided in the communication management means, for distributing the distribution information supplied from the information supply means to a corresponding communication terminal; privilege assignment means, provided in the communication management means, for assigning a privilege to a user of the communication terminal to which the distribution information is distributed. With the configuration, a charge to a user for communication between communication terminals can be reduced in return for the

distribution of the distribution information to the communication

terminals of the users, thereby realizing a communication system

capable of remarkably improving the convenience for users.

[0137]

According to the present invention, a communication

management apparatus includes: information distribution means for

distributing distribution information to communication terminals

to which communication lines are connected; and privilege

assignment means for assigning a privilege to a user of the

communication terminal to which the distribution information is

distributed. With the configuration, a charge to a user for

communication between communication terminals can be reduced in

return for the distribution of the distribution information to the

communication terminals of the users, thereby realizing a

communication management apparatus capable of remarkably improving

the convenience for users.

[0138]

Furthermore, according to the present invention, a

communication management method includes: a first step of

distributing distribution information to communication terminals

to which communication lines are connected; and a second step of

assigning a privilege to a user of the communication terminal to

which the distribution information is distributed. With the

configuration, a charge to a user for communication between

communication terminals can be reduced in return for the

distribution of the distribution information to the communication

terminals of the users, thereby realizing a communication
management method capable of remarkably improving the convenience
for users.

[Brief Description of the Drawings]
[Fig. 1]

Fig. 1 is a block diagram of the configuration of the
communication system according to a first embodiment of the
present invention;

[Fig. 2]

Fig. 2 is a block diagram of the configuration of the
communication system according to the first embodiment of the
present invention;

[Fig. 3]

Fig. 3 is a schematic view of the circuit for explanation of
the flow of the distribution of advertisement information during
telephone conversation;

[Fig. 4]

Fig. 4 is a schematic view of the circuit for explanation of
the process of displaying an advertisement;

[Fig. 5]

Fig. 5 is a flowchart for explanation of the advertisement
distributing procedure;

[Fig. 6]

Fig. 6 is a flowchart for explanation of the accounting
procedure;

[Fig. 7]

Fig. 7 is a schematic view for explanation of the flow of the distribution of advertisement information;

[Fig. 8]

Fig. 8 is a block diagram showing the configuration of the communication system according to a second embodiment;

[Fig. 9]

Fig. 9 is a block diagram of the configuration of the common carrier according to the second embodiment;

[Fig. 10]

Fig. 10 is a block diagram of the configuration of the keyword-category table;

[Fig. 11]

Fig. 11 is a block diagram of the configuration of the advertisement-category table;

[Fig. 12]

Fig. 12 is a flowchart for explanation of the voice recognition activating procedure;

[Fig. 13]

Fig. 13 is a flowchart for explanation of the voice recognizing procedure;

[Fig. 14]

Fig. 14 is a flowchart for explanation of the advertisement distributing procedure;

[Fig. 15]

Fig. 15 is a schematic view of the flow of the voice recognizing procedure;

[Fig. 16]

Fig. 16 is a block diagram of the configuration of the communication system according to a third embodiment of the present invention;

[Fig. 17]

Fig. 17 is a schematic view for explanation of the process of distributing advertisement information from a common carrier;

[Fig. 18]

Fig. 18 is a flowchart for explanation of the advertisement distribution managing procedure;

[Fig. 19]

Fig. 19 is a block diagram of the configuration of the communication system according to a fourth embodiment of the present invention;

[Fig. 20]

Fig. 20 is a block diagram of the configuration of the common carrier according to the fourth embodiment of the present invention;

[Fig. 21]

Fig. 21 is a schematic view of the configuration of a discount rate table;

[Fig. 22]

Fig. 22 is a schematic view for explanation of the flow of distributing BGM as advertisement information;

[Fig. 23]

Fig. 23 is a block diagram for explanation of the connection between the common carrier and a user according to another embodiment of the present invention;

[Fig. 24]

Fig. 24 is a schematic view of the configuration of the phone number-category table;

[Fig. 25]

Fig. 25 is a schematic view of the action pattern of a user;

[Fig. 26]

Fig. 26 is a schematic view for explanation of the flow of specifying a BGM advertisement category; and

[Fig. 27]

Fig. 27 is a block diagram of the configuration of the communication system according to another embodiment of the present invention.

[Explanation of Reference Numerals]

1, 20, 30, 40, 60 ... communication system, 2, 2A ... portable telephone terminal, 3 ... portable telephone network, 4 ... public telephone network, 5, 21, 41 ... common carrier, 6 ... advertising agency, $6A_1$ to $6A_n$ ... advertisement supply terminal, 10 ... CPU, 11 ... server, 12 ... telephone answering machine server, $1TL_1$ to nTL_n, $1ATL_1$ to $nATL_n$ ... telephone, IN ... intelligent network, MO ... monitor unit, CM1 to CM4 ... advertisement, RT1, RT5 ... advertisement distributing procedure, RT2 ... accounting procedure,

RT3 ... voice recognition activating procedure, RT4 ... voice

recognizing procedure, RT6 ... advertisement distribution managing
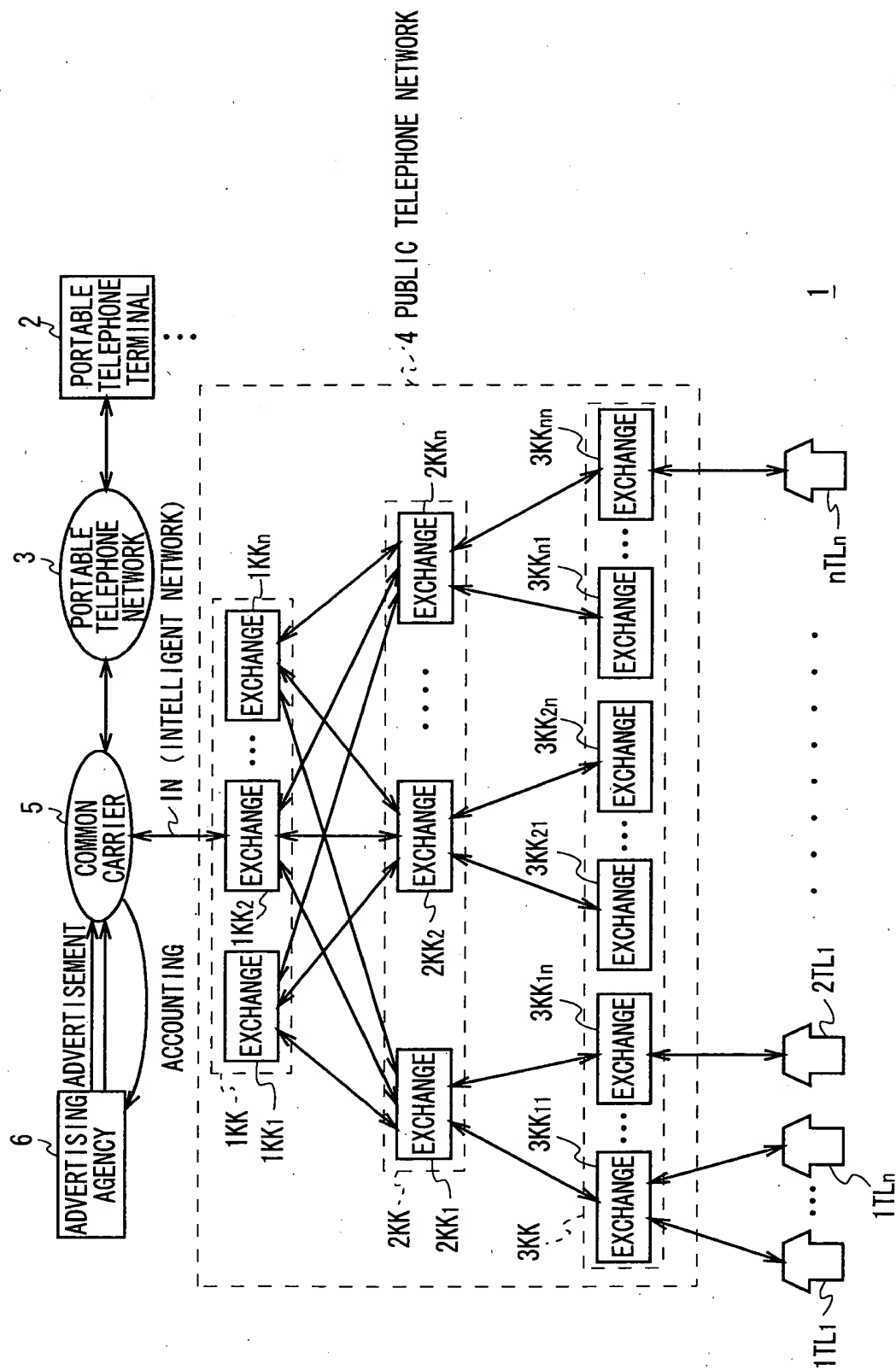
procedure.

FIG. 1 CONFIGURATION OF THE COMMUNICATION SYSTEM ACCORDING TO A FIRST EMBODIMENT
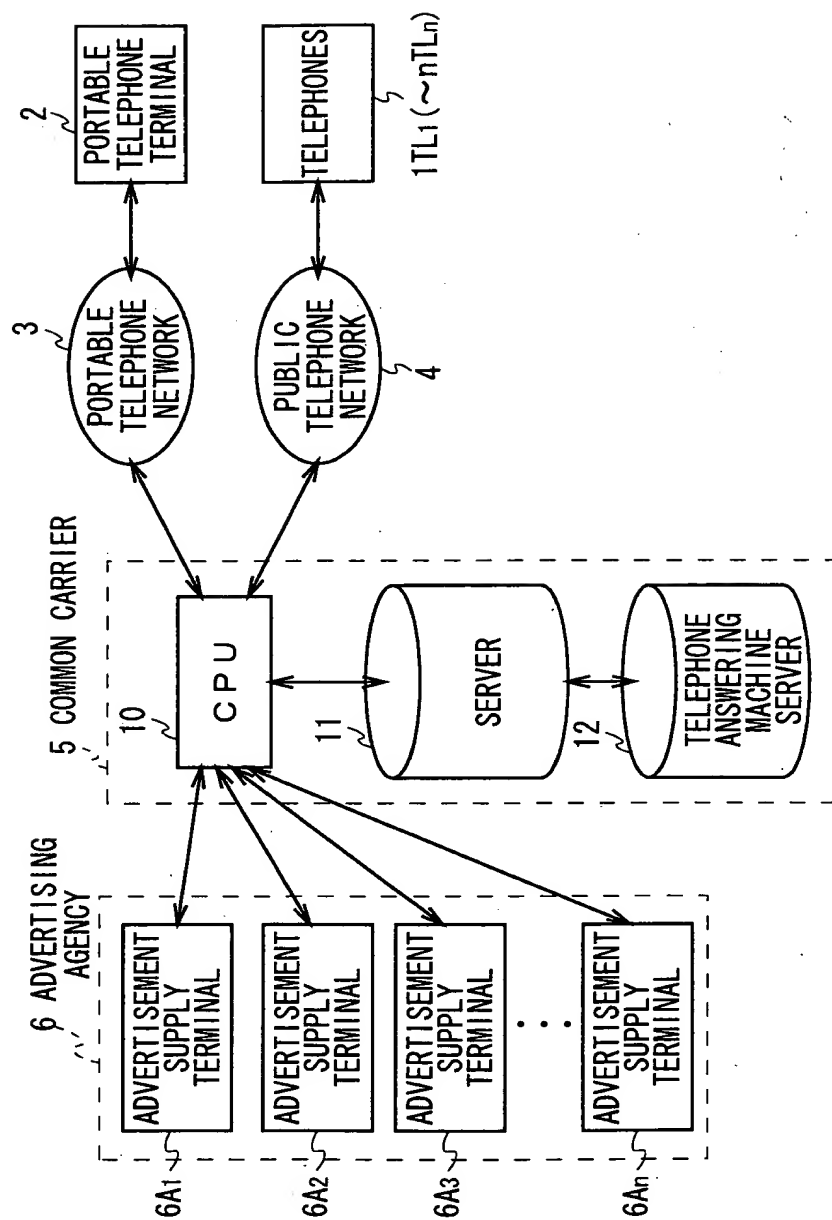
FIG. 2 CONFIGURATION OF THE COMMON CARRIER ACCORDING TO THE FIRST EMBODIMENT

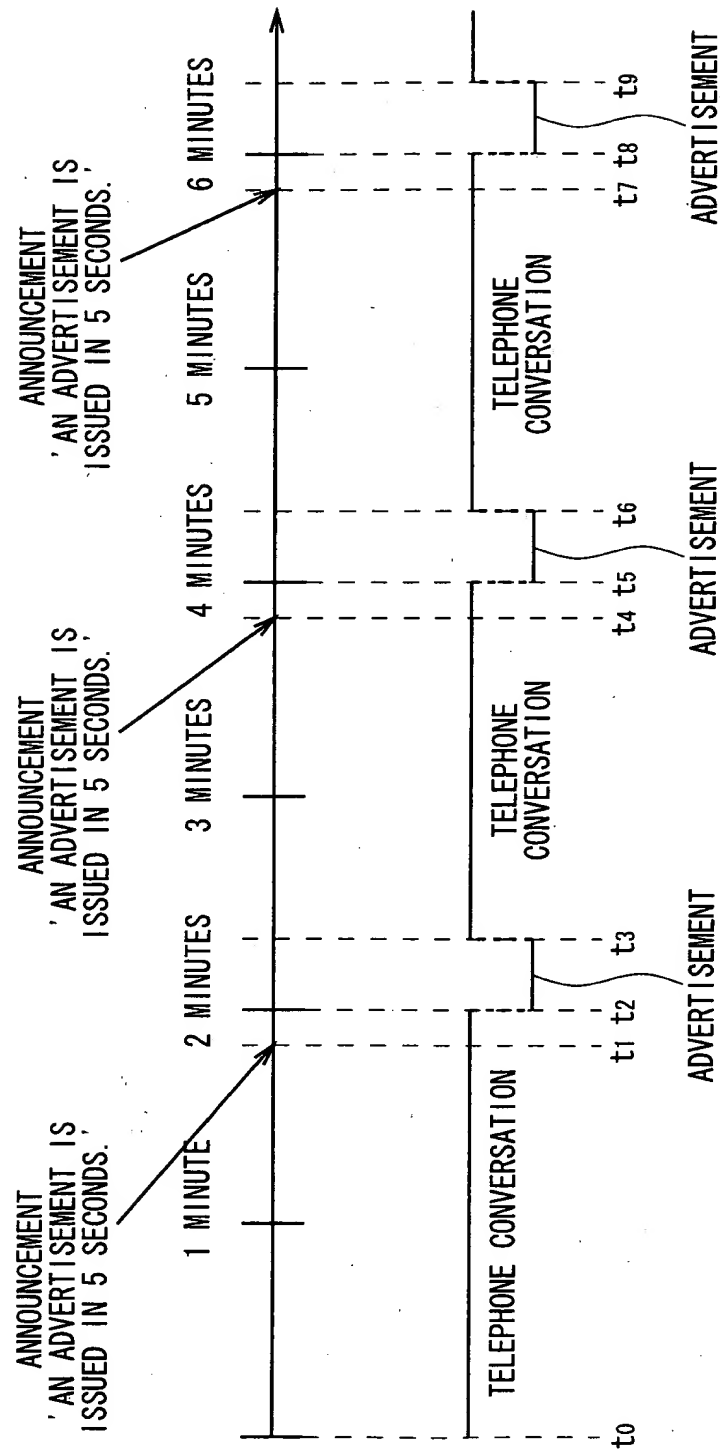FIG. 3 FLOW OF THE DISTRIBUTION OF ADVERTISEMENT INFORMATION DURING TELEPHONE CONVERSATION

TEXT

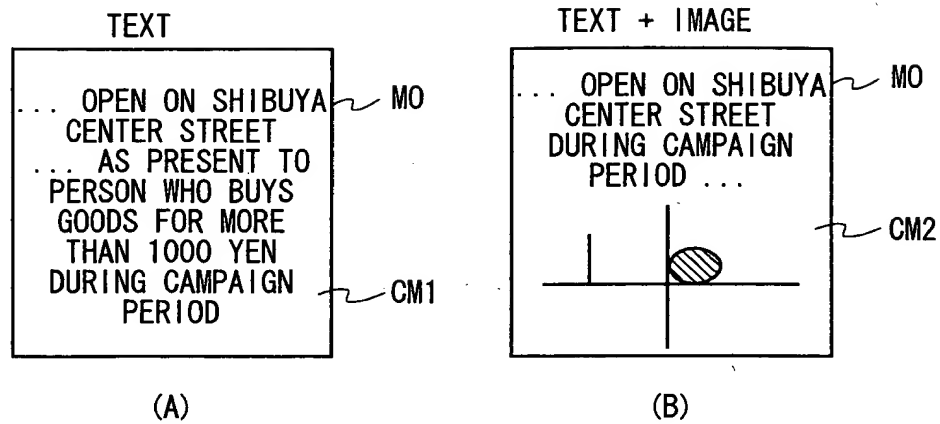```
... OPEN ON SHIBUYA   ~ MO
    CENTER STREET
... AS PRESENT TO
PERSON WHO BUYS
GOODS FOR MORE
THAN 1000 YEN
DURING CAMPAIGN   ~ CM1
    PERIOD
```

(A)

TEXT + IMAGE

```
...  OPEN ON SHIBUYA        ~ MO
    CENTER STREET
    DURING CAMPAIGN
      PERIOD ...
                            ~ CM2
```

(B)

FIG. 4 PROCESS OF DISPLAYING AN ADVERTISEMENT

[FIG. 5]

RT1 ～ (START) ～ SP0

～ SP1
NEW TELEPHONE? — N

Y

OBTAINING PHONE NUMBER ～ SP2

DISTRIBUTING ADVERTISEMENT ～ SP3

～ SP4
TELEPHONE
CONVERSATION
TERMINATED?
N

Y

NOTIFYING ACCOUNTING ～ SP5
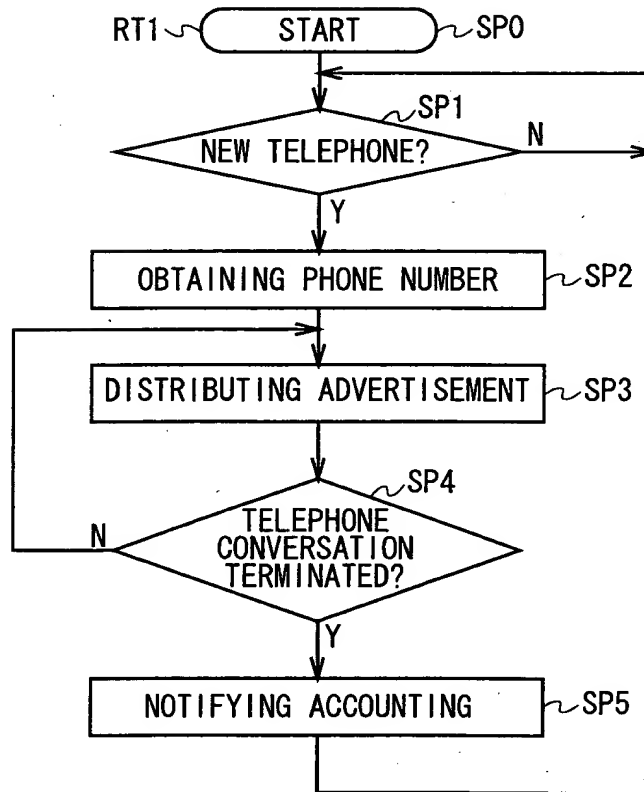
FIG. 5 ADVERTISEMENT DISTRIBUTING PROCEDURE (1)

[TITLE OF DOCUMENT] DRAWINGS
[FIG. 6]

RT2 — (START) — SP10

SP11
NOTIFYING
ACCOUNTING? — N

Y

OBTAINING PHONE NUMBER
TO WHICH RATE IS CHARGED — SP12

UPDATING ACCOUNTING DATABASE — SP13
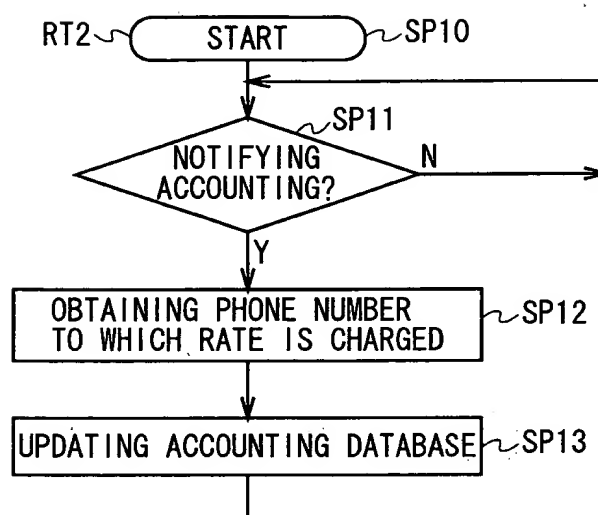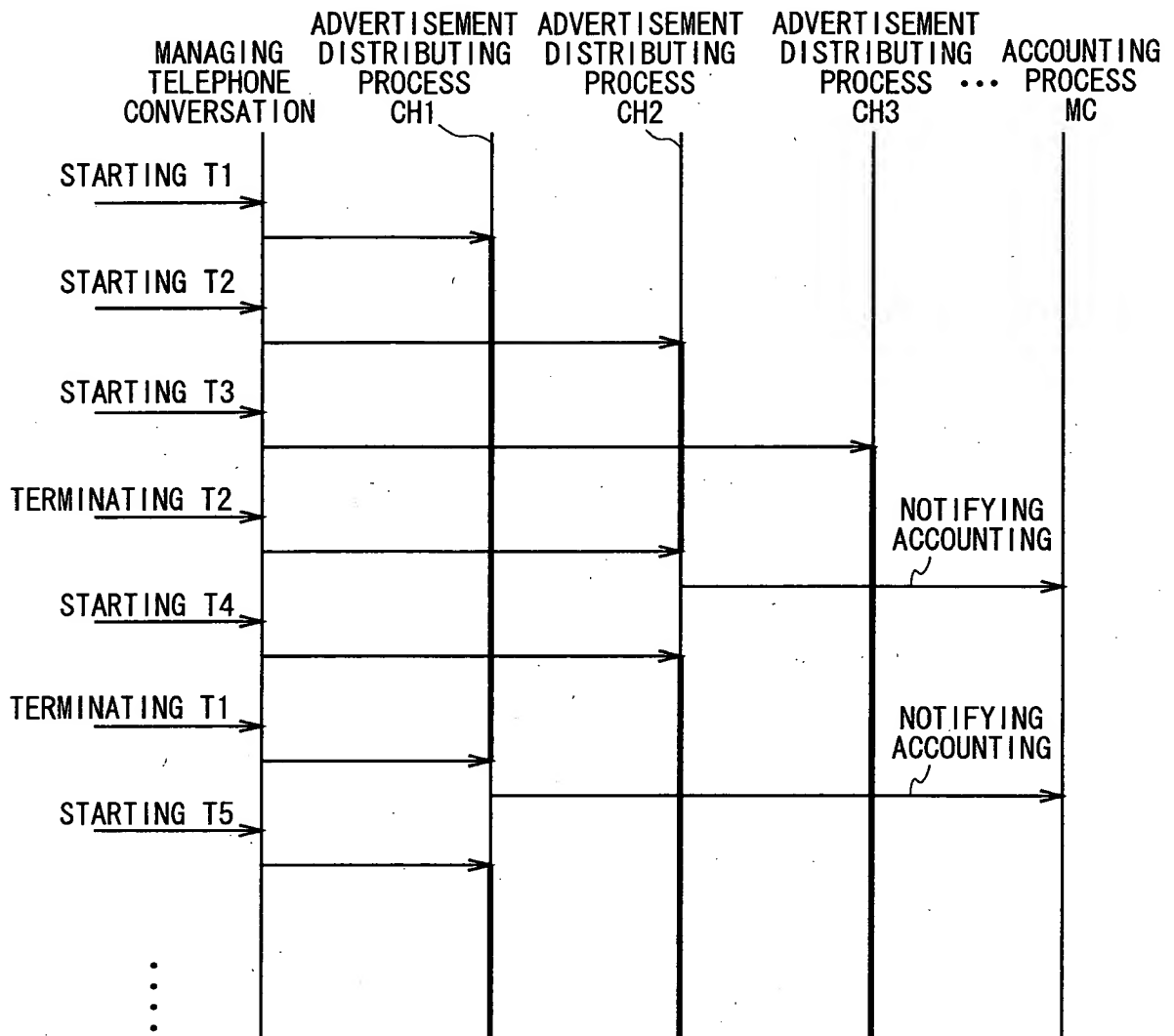
FIG. 6 ACCOUNTING PROCEDURE

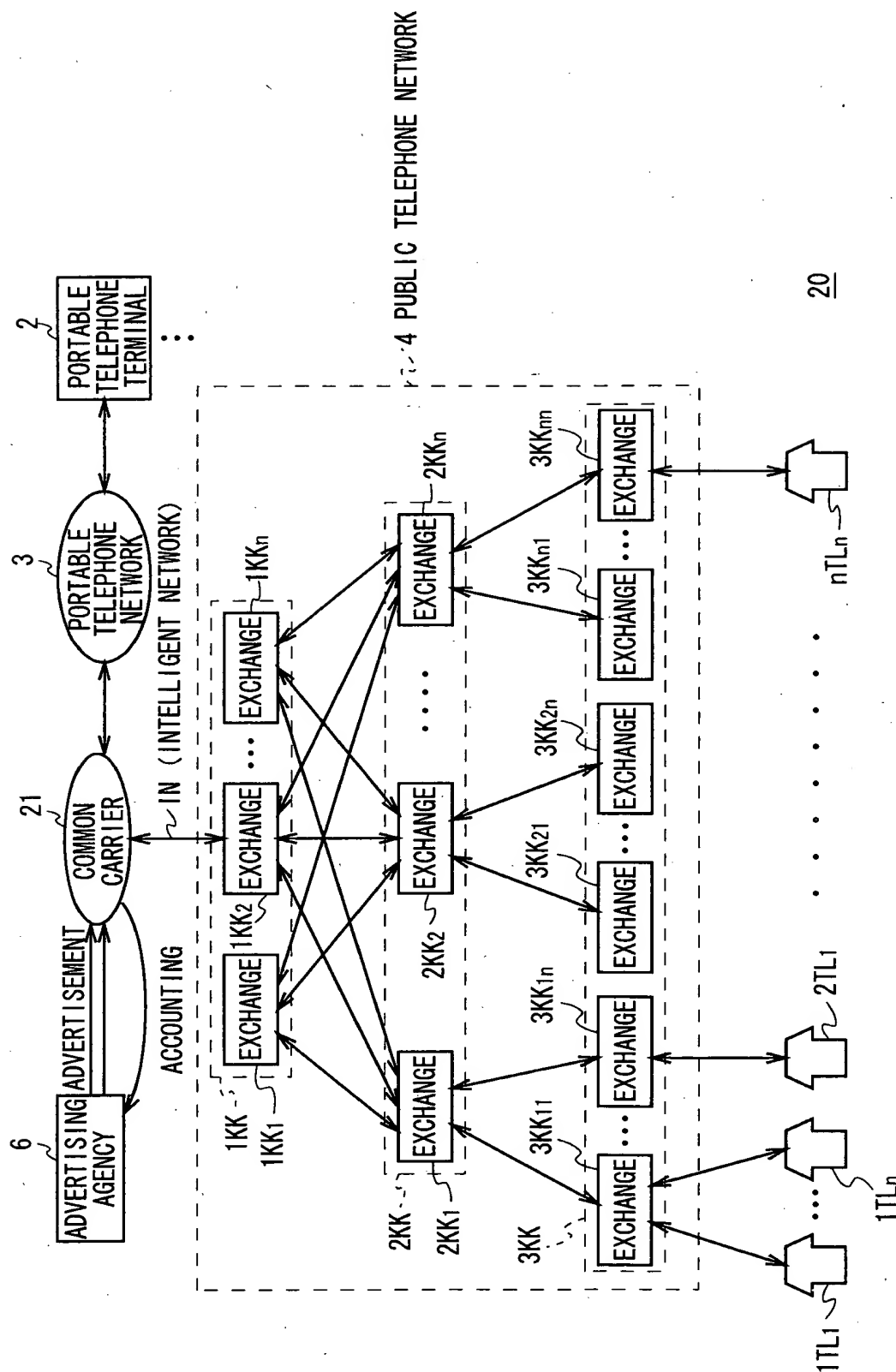FIG. 7 FLOW OF THE DISTRIBUTION OF ADVERTISEMENT INFORMATION

FIG. 8 CONFIGURATION OF THE COMMUNICATION SYSTEM ACCORDING TO A SECOND EMBODIMENT
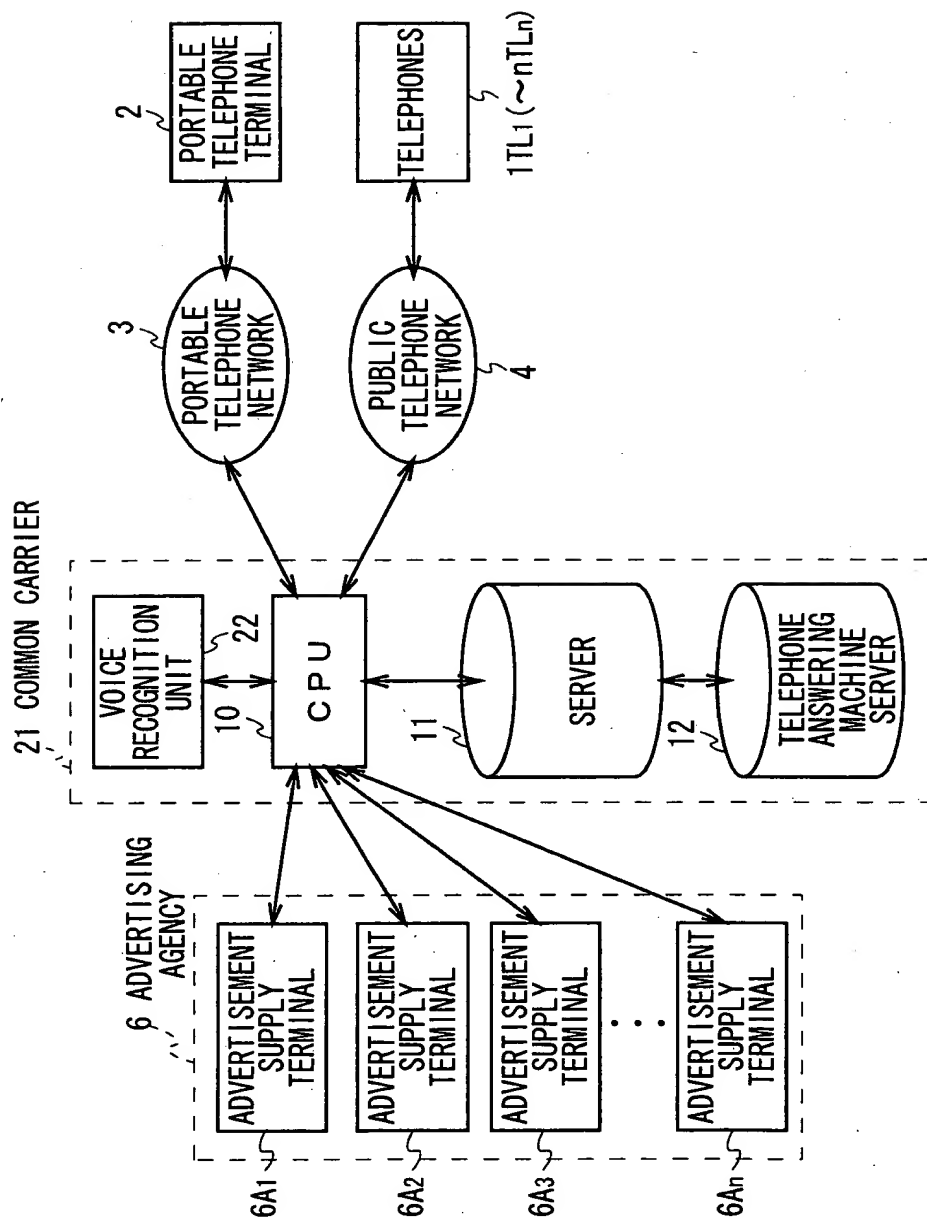
FIG. 9 CONFIGURATION OF THE COMMON CARRIER ACCORDING TO THE SECOND EMBODIMENT

[TITLE OF DOCUMENT] DRAWINGS
[FIG. 10]

KEYWORD-CATEGORY TABLE

LARGE CATEGORY	INTERMEDIATE CATEGORY	KEYWORD
SPORTS	GOLF	COUNTRY CLUB, .. OPEN, ···
	BASEBALL	HOME RUN, MAGIC, RATE OF DEFENSE, HIT
	⋮	⋮
MUSIC	POPS (JAPANESE)	○○○, ○□□, □△○, ···
	POPS (WESTERN)	○×□, □×□, △○△, ···
	CLASSICAL MUSIC	□□□, △△△, ×××, ···
	⋮	⋮
FOOD	JAPANESE FOOD	TENPURA, SUSHI, ···
	ITALIAN FOOD	PASTA, ···
	⋮	

TA1

FIG. 10 CONFIGURATION OF THE KEYWORD-CATEGORY TABLE

[FIG. 11]

ADVERTISEMENT-CATEGORY TABLE

LARGE CATEGORY	INTERMEDIATE CATEGORY	ADVERTISEMENT
SPORTS	GOLF	... SPORTS SHOP,
	BASEBALL	... SPORTS SHOP,
	⋮	⋮
MUSIC	POPS (JAPANESE)	... LAST LIVE PERFORMANCE, ... NEW RELEASE
	POPS (WESTERN)	... CONCERT IN JAPAN,
	CLASSICAL MUSIC	... SYMPHONY, ... PHILHARMONIC
	⋮	⋮
FOOD	JAPANESE FOOD	SHABU-SHABU AS MUCH AS YOU LIKE
	ITALIAN FOOD	○△□, ···
	⋮	

TA2

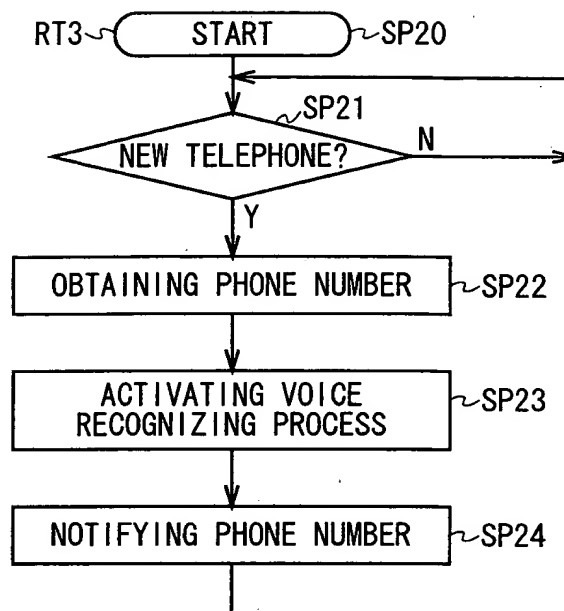FIG. 11 CONFIGURATION OF THE ADVERTISEMENT-CATEGORY TABLE

[TITLE OF DOCUMENT] DRAWINGS
[FIG. 12]

RT3 — START — SP20

SP21
NEW TELEPHONE? — N

Y

OBTAINING PHONE NUMBER — SP22

ACTIVATING VOICE
RECOGNIZING PROCESS — SP23

NOTIFYING PHONE NUMBER — SP24

FIG. 12 VOICE RECOGNITION ACTIVATING PROCEDURE

[FIG. 13]

RT4 — START — SP30

OBTAINING PHONE NUMBER — SP31

RECOGNIZING VOICE — SP32

UPDATING KEYWORD TABLE — SP33

SP34
TELEPHONE
CONVERSATION
TERMINATED? — N

Y

END — SP35

FIG. 13 VOICE RECOGNIZING PROCEDURE

[TITLE OF DOCUMENT] DRAWINGS
[FIG. 14]

RT5 ～ (START) ～ SP40

～ SP41
NEW TELEPHONE? ——N——→

| Y

OBTAINING PHONE NUMBER ～ SP42

SELECTING ADVERTISEMENT ～ SP43

DISTRIBUTING ADVERTISEMENT ～ SP44
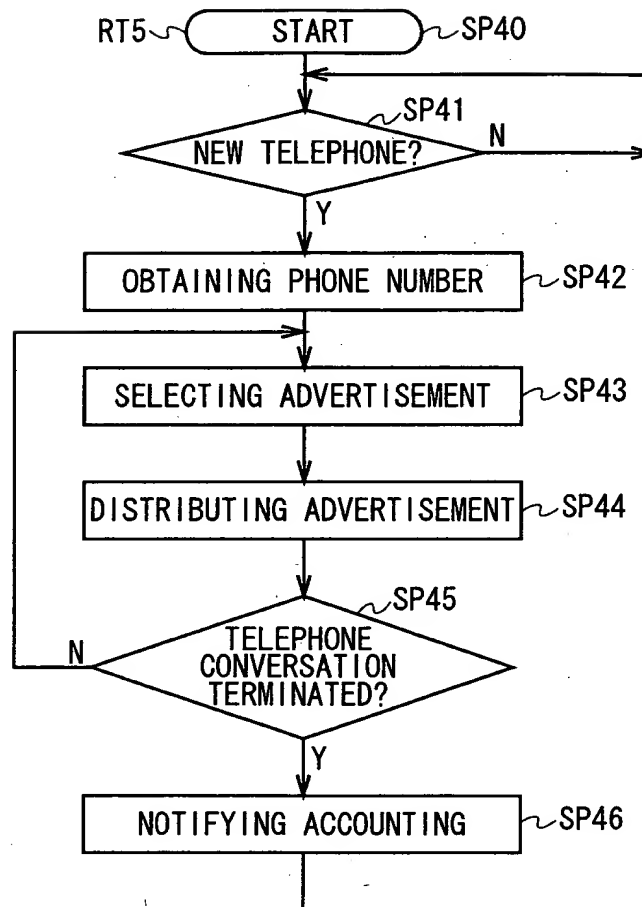
～ SP45
N—— TELEPHONE CONVERSATION TERMINATED?

| Y

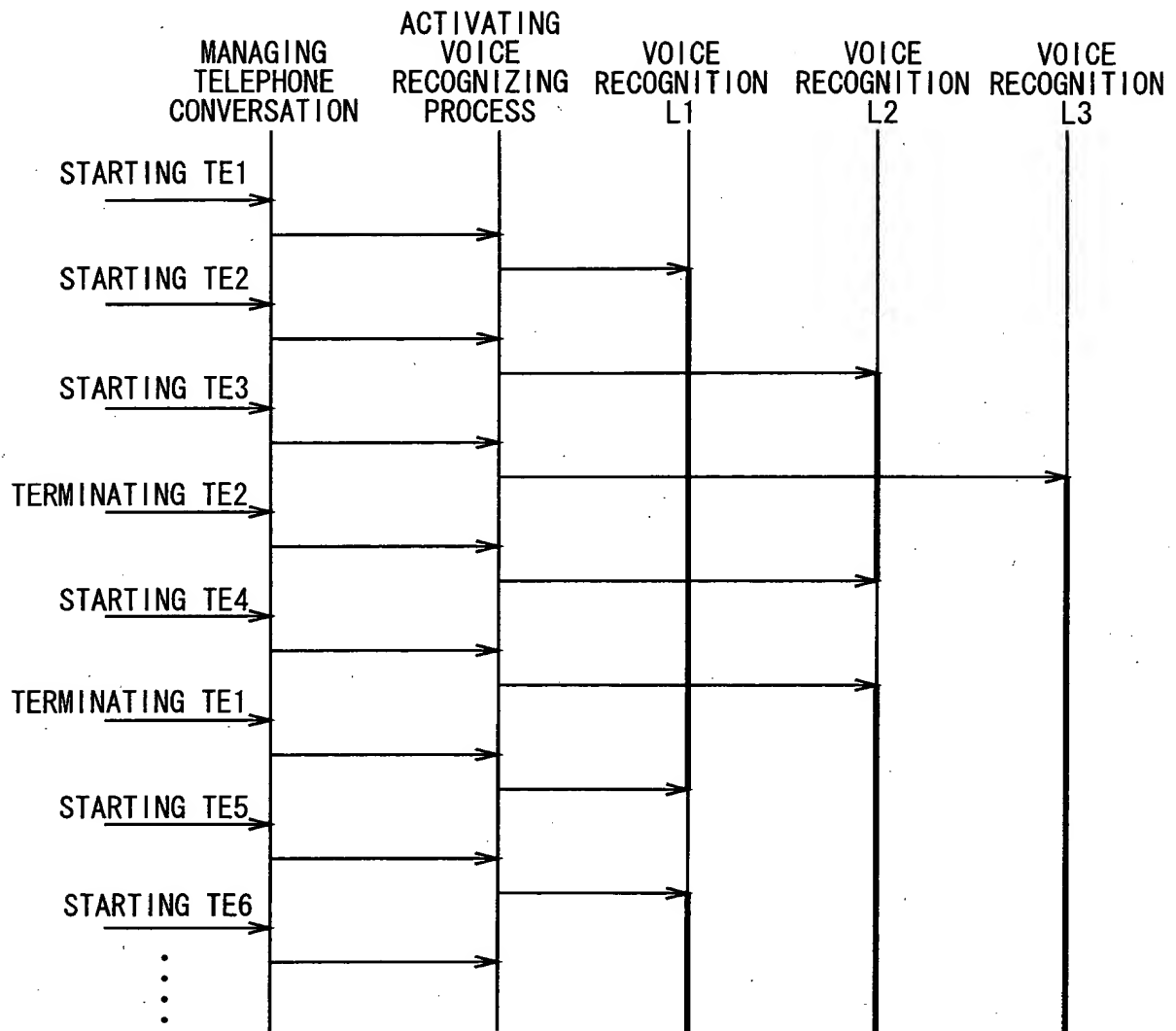NOTIFYING ACCOUNTING ～ SP46

FIG. 14 ADVERTISEMENT DISTRIBUTING PROCEDURE (2)

FIG. 15 FLOW OF THE VOICE RECOGNIZING PROCEDURE

FIG. 16 CONFIGURATION OF THE COMMUNICATION SYSTEM ACCORDING TO A THIRD EMBODIMENT

(A)

... HIGH SPEC MODEL
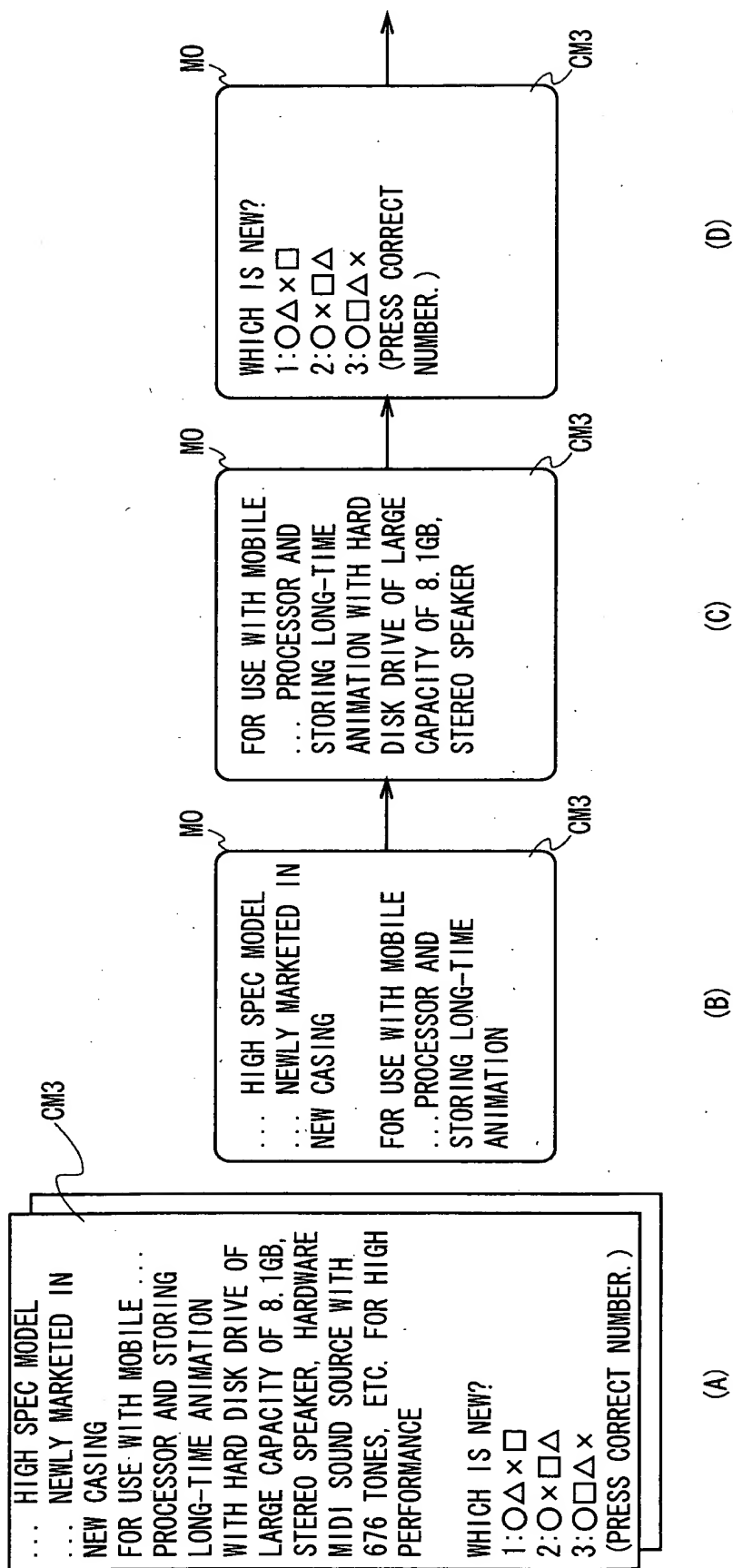... NEWLY MARKETED IN
NEW CASING
FOR USE WITH MOBILE ...
PROCESSOR AND STORING
LONG-TIME ANIMATION
WITH HARD DISK DRIVE OF
LARGE CAPACITY OF 8.1GB,
STEREO SPEAKER, HARDWARE
MIDI SOUND SOURCE WITH
676 TONES, ETC. FOR HIGH
PERFORMANCE

WHICH IS NEW?
1:O△×□
2:O×□△
3:O□△×
(PRESS CORRECT NUMBER.)

(B)

... HIGH SPEC MODEL
... NEWLY MARKETED IN
NEW CASING

FOR USE WITH MOBILE
PROCESSOR AND
...STORING LONG-TIME
ANIMATION

(C)

FOR USE WITH MOBILE
... PROCESSOR AND
STORING LONG-TIME
ANIMATION WITH HARD
DISK DRIVE OF LARGE
CAPACITY OF 8.1GB,
STEREO SPEAKER

(D)

WHICH IS NEW?
1:O△×□
2:O×□△
3:O□△×
(PRESS CORRECT
NUMBER.)

FIG. 17 EXPLANATION OF THE PROCESS OF DISTRIBUTING ADVERTISEMENT INFORMATION FROM A COMMON CARRIER

[TITLE OF DOCUMENT] DRAWINGS
[FIG. 18]

RT6 ~ (START) ~ SP50

~ SP51
ACKNOWLEDGMENT? ── N

Y

UPDATING DISTRIBUTION RECORD OF
ADVERTISEMENT INFORMATION ~ SP52

TRANSMITTING COMMAND TO DELETE
ADVERTISEMENT INFORMATION FROM
USER TERMINAL ~ SP53

~ SP54
NUMBER OF
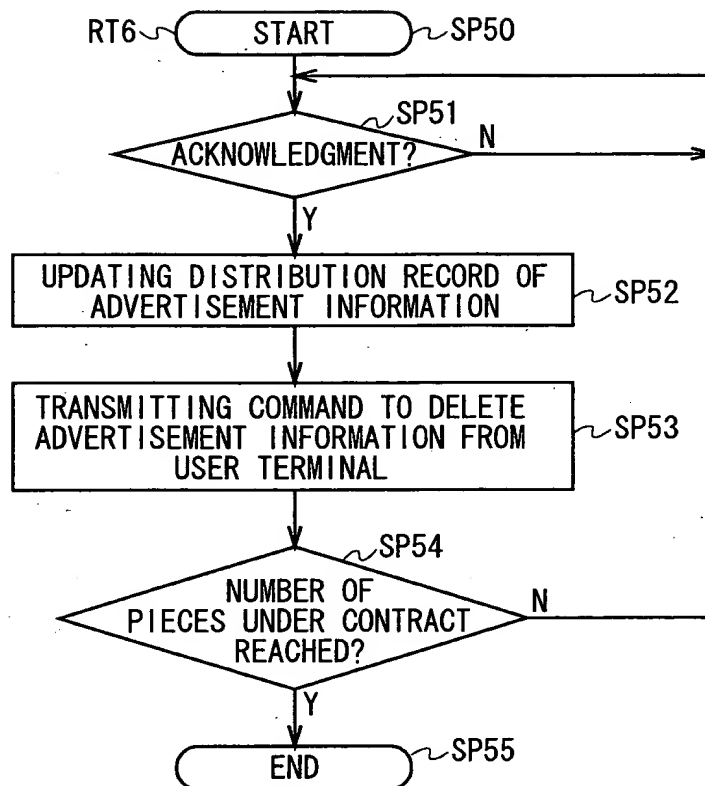PIECES UNDER CONTRACT ── N
REACHED?

Y

(END) ~ SP55

FIG. 18 ADVERTISEMENT DISTRIBUTION MANAGING PROCEDURE

FIG. 19 CONFIGURATION OF THE COMMUNICATION SYSTEM ACCORDING TO A FOURTH EMBODIMENT

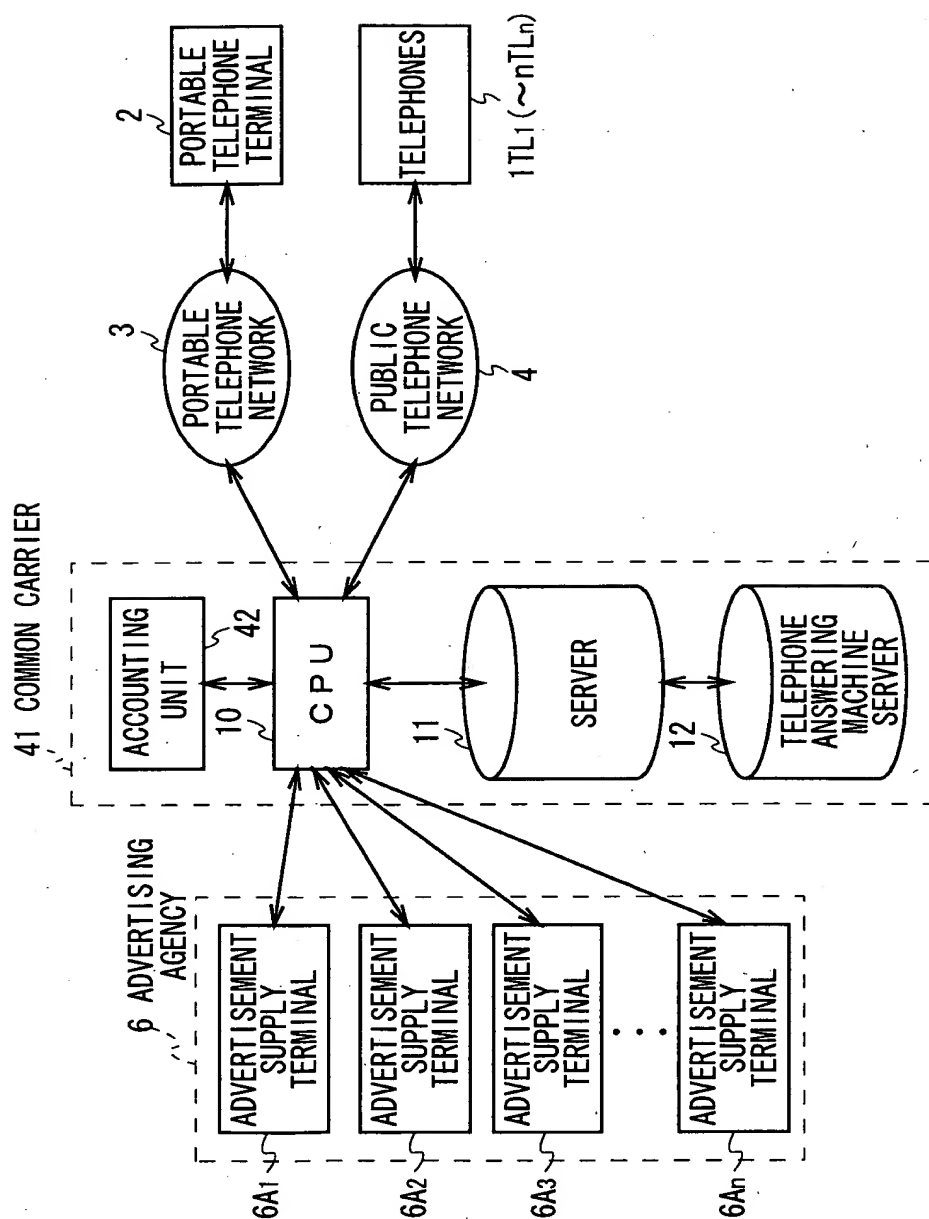FIG. 20 CONFIGURATION OF THE COMMON CARRIER ACCORDING TO THE FOURTH EMBODIMENT

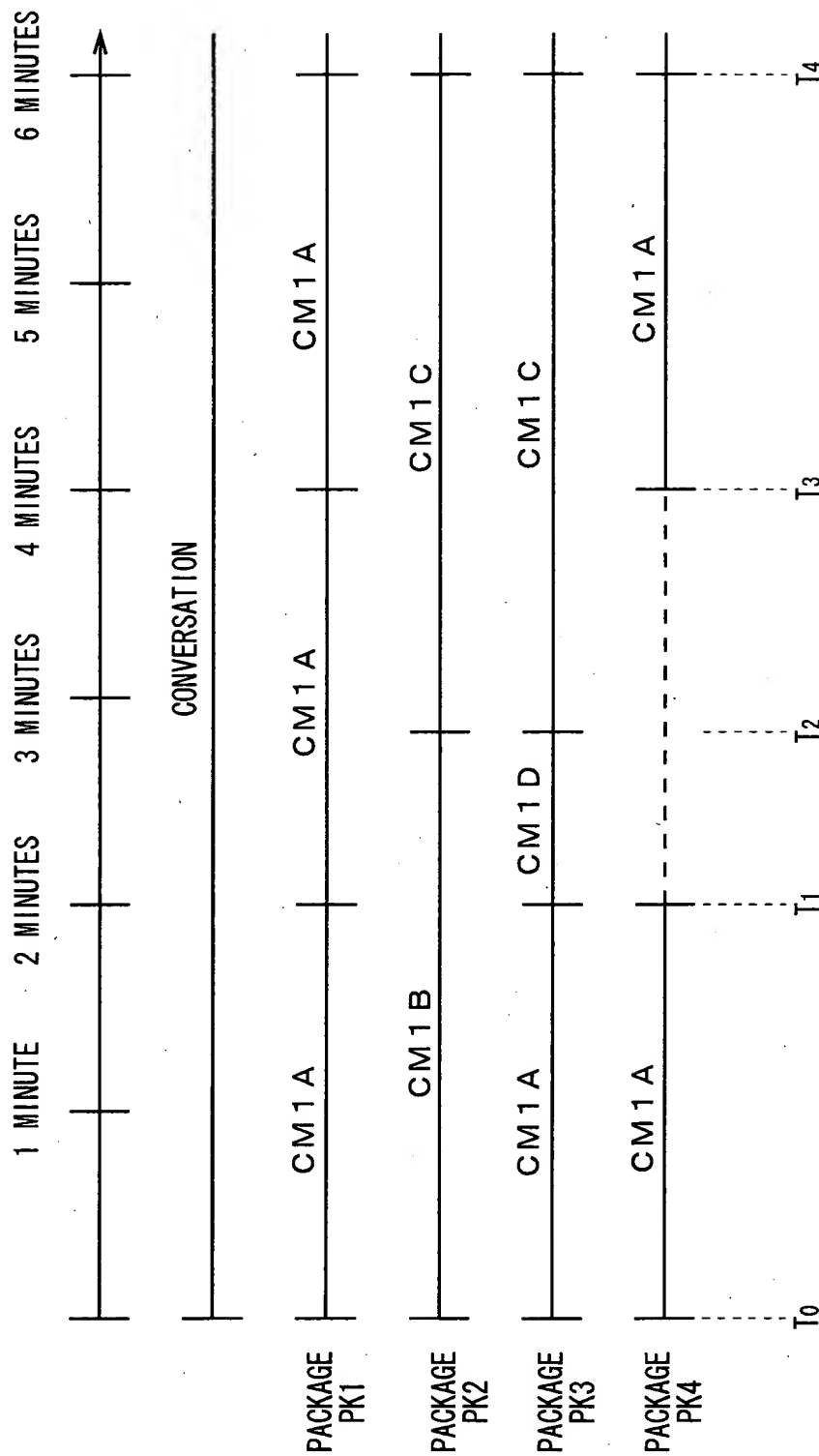| ADVERTISEMENT POINT	CONTRACT FEE	FUNDAMENTAL RATE	TELEPHONE CONVERSATION RATE
0	¥3,000	¥4,000	¥20/MINUTE
10POINTS	¥2,700	¥3,600	¥18/MINUTE
20POINTS	¥2,400	¥3,200	¥16/MINUTE
30POINTS	¥2,100	¥2,800	¥14/MINUTE

DT

FIG. 21 CONFIGURATION OF A DISCOUNT RATE TABLE

FIG. 22 DISTRIBUTING BGM AS ADVERTISEMENT INFORMATION
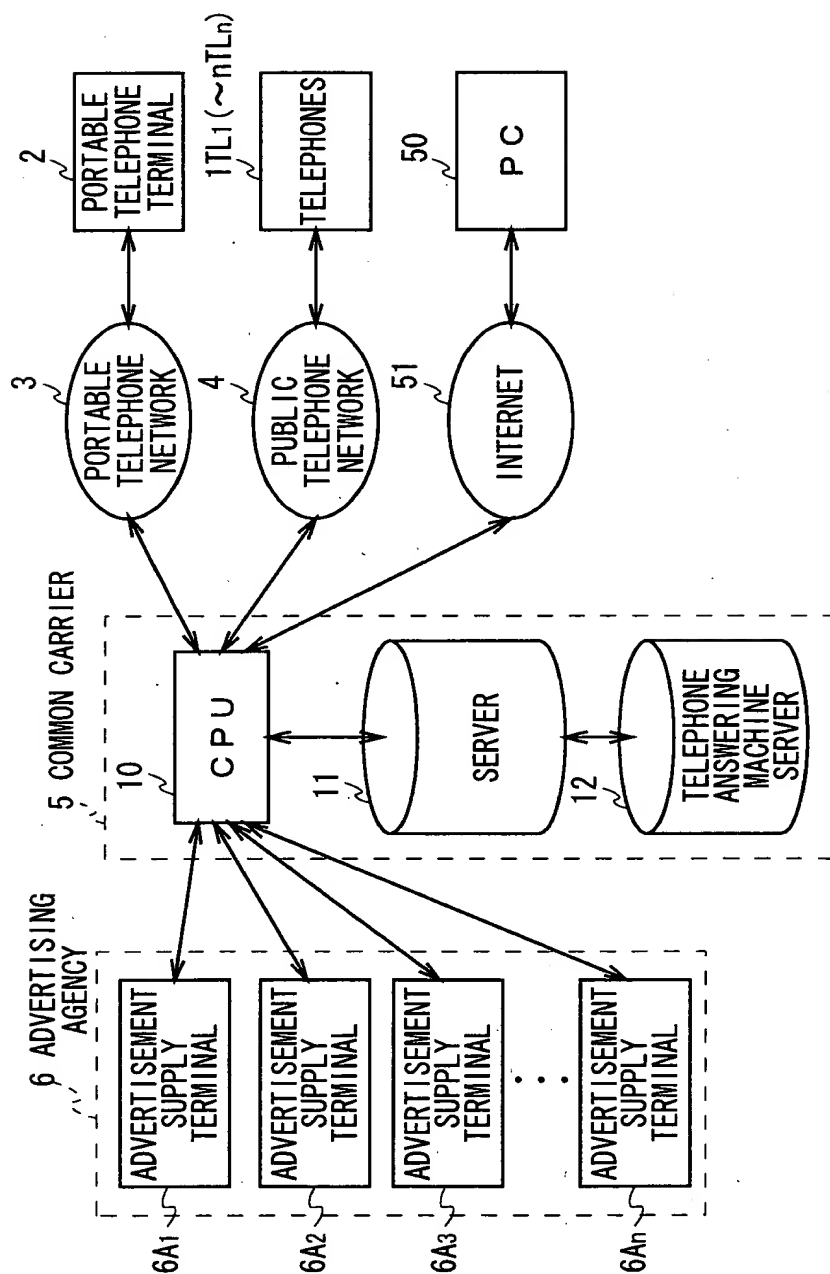
FIG. 23 CONNECTION BETWEEN THE COMMON CARRIER AND A USER ACCORDING TO ANOTHER EMBODIMENT

PHONE NUMBER-CATEGORY TABLE

LARGE CATEGORY	INTERMEDIATE CATEGORY	PHONE NUMBER
SPORTS	GOLF	○○-×××-×××, ○×-×○×-×××, ···
	BASEBALL	○×-×○○-△×△, △△-○×○-○○○, ···
	⋮	⋮
MUSIC	POPS (JAPANESE)	××-○○○-□□□, □×-×□○-○□×, ···
	POPS (WESTERN)	□□-△○△-△○△, △×-△××-××○, ···
	CLASSICAL MUSIC	×○-××○-□□△, □○-○△△-△△○, ···
	⋮	⋮
FOOD	JAPANESE FOOD	○△-□○□-△×○, ···
	FRENCH FOOD	△○-△△□-
	⋮	

TA1

FIG. 24 CONFIGURATION OF THE PHONE NUMBER-CATEGORY TABLE

[FIG. 25]

	MON.	TUE.	WED.	THU.	FRI.	SAT.	SUN.
6:00 | 12:00	AREA A	AREA A	AREA A	AREA A	AREA A	AREA C	AREA C
12:00 | 18:00	AREA A	AREA E	AREA A	AREA F	AREA A	AREA C	AREA X
18:00 | 24:00	AREA A	AREA D	AREA B	AREA C	AREA D	AREA E	AREA X
24:00 | 6:00	AREA A	AREA A	AREA A	AREA A	AREA D	AREA A	AREA A

FIG. 25 ACTION PATTERN OF A USER

TERMINAL UNIT — MO

SELECT DESIRED TYPE
OF BGM

1. JPOP
▷ 2. ROCK
3. JAZZ
4. R&B
5. HIP HOP
6. BLUES
7. OTHERS

[ENTER] — CM4

TRANSMITTING 'ROCK'

SELECTING AND DISTRIBUTING
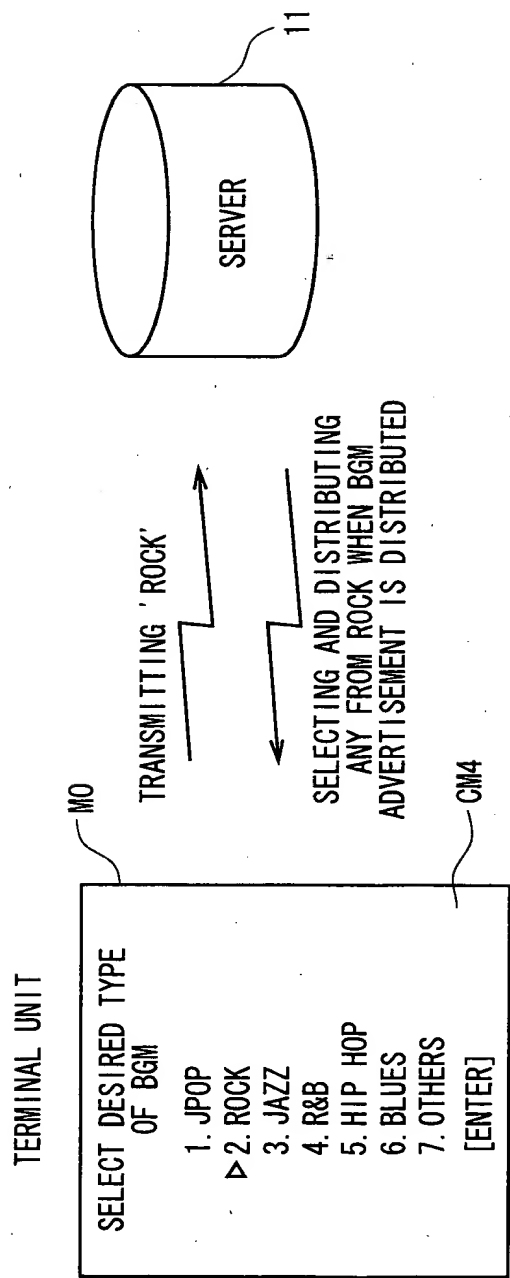ANY FROM ROCK WHEN BGM
ADVERTISEMENT IS DISTRIBUTED

SERVER — 11

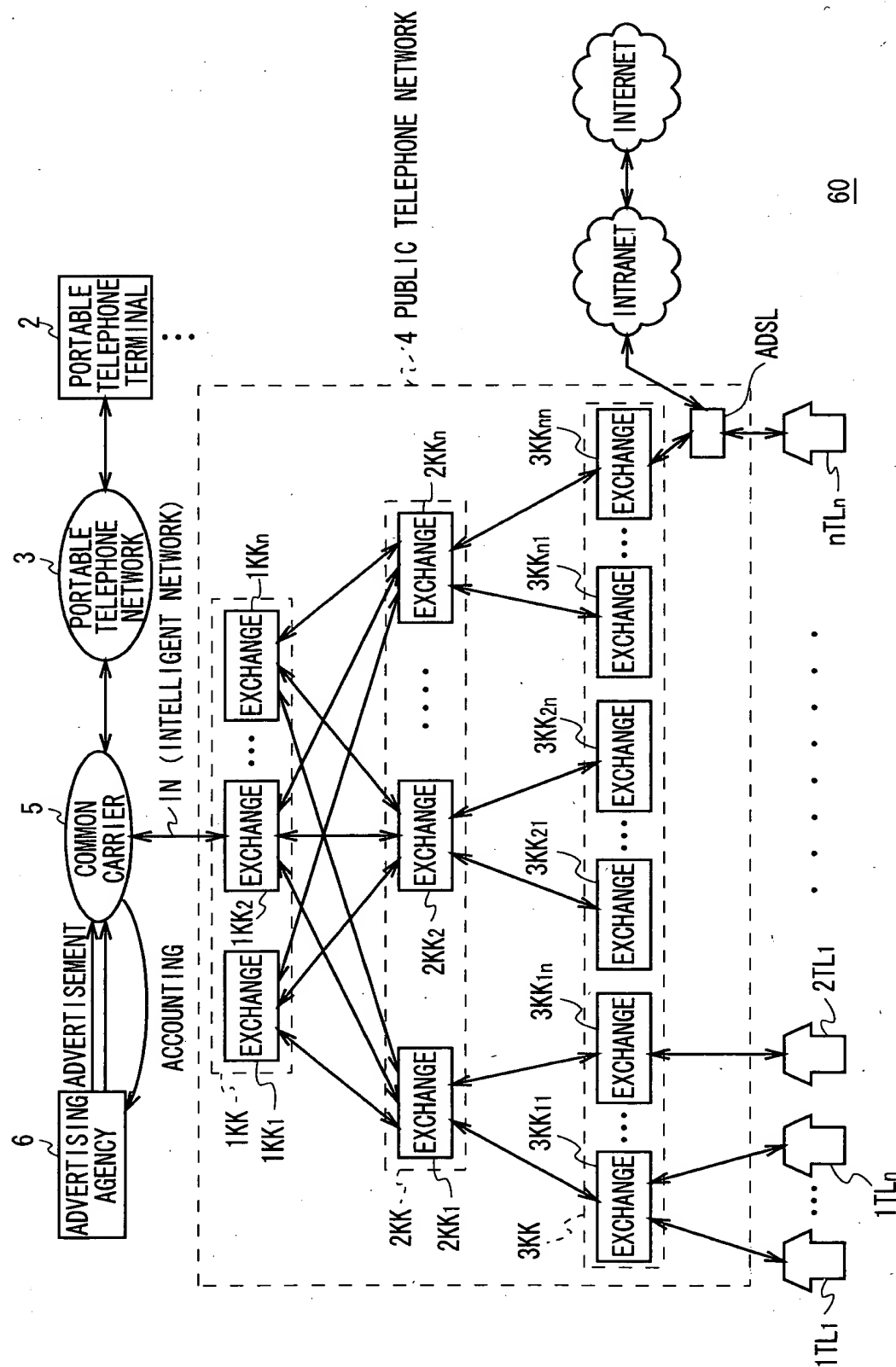FIG. 26 FLOW OF SPECIFYING A BGM ADVERTISEMENT CATEGORY

FIG. 27 CONFIGURATION OF THE COMMUNICATION SYSTEM ACCORDING TO ANOTHER EMBODIMENT

[Name of Document] ABSTRACT

[Abstract]

[Object]

It has been difficult to realize a communication system, and a communication management apparatus and method capable of remarkably improving the convenience to users.

[Constitution]

A communication system includes: line connection means for connecting lines between communication terminals; communication management means for managing communication between the communication terminals through the line connection means; information supply means for supplying distribution information to the communication management means; information distribution means, provided in the communication management means, for distributing the distribution information to a corresponding communication terminal; privilege assignment means, provided in the communication management means, for assigning a privilege to a user of the communication terminal to which the distribution information is distributed. A communication management apparatus includes: information distribution means for distributing distribution information to communication terminals to which communication lines are connected; and privilege assignment means for assigning a privilege to a user of the communication terminal

to which the distribution information is distributed. A

communication management method includes: distributing

distribution information to communication terminals to which

communication lines are connected; and assigning a privilege to a

user of the communication terminal to which the distribution

information is distributed.

[Selected Drawing] Fig. 1